

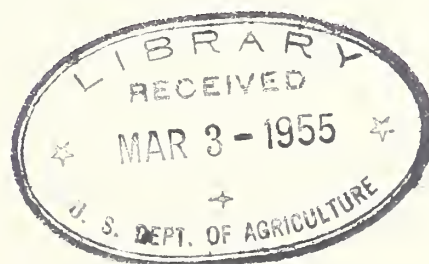
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Report of  
  
The Second Annual  
  
USDA Film Workshop  
  
"FILMS FOR TELEVISION"



January 25-29, 1954

Washington, D. C.



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## PREFACE

by

R. Lyle Webster

Director of Information, USDA

"Films for Television" was chosen as the theme for the second U. S. Department of Agriculture Film Workshop to offer opportunity for visual workers in USDA, the land-grant colleges, and other government agencies to pool their knowledge and experiences in this field.

More than one hundred persons registered for the workshop. Fourteen land-grant colleges were represented. The presence of a member of the staff of the Ontario Agricultural College at Guelph, Ontario, gave an international note to the gathering. In addition to the land-grant college representatives, at least six other states had representatives from other government agencies, labor organizations, commercial concerns, and colleges and universities. A number of interested individuals participated.

A primary purpose in the planning and execution of the workshop was to make more readily available to land-grant college workers the technical resources and experience of film workers in the Department, both in motion pictures and in television use of films. This is in line with the policy of the Office of Information to integrate more closely Department information work with that in the colleges.

We are especially grateful to two leaders who met with the workshop. True D. Morse, Under Secretary of Agriculture, welcomed the assembled group the first day. He discussed the administration's farm program and the reorganization of the Department of Agriculture. In pointing up the importance of information activities, he emphasized timeliness. Don't be content with getting the message out, but get it out at the right time, he advised.

The workshop closed with a message from Robert Mullen, Executive Secretary of the National Citizens' Committee for Educational Television. He gave us a very informative and entertaining report of the progress to date and the future plans for educational television.

We in USDA gained much from the association with fellow workers in the field. No printed report of the workshop can reflect fully the value of the meeting itself. The following pages contain summaries of the speeches and digests of the technical talks. These presentations are the tangible items of the conference. Of infinitely more importance and value were those intangible factors such as the give-and-take of discussion and the informal interchange of personal experiences.

The USDA Film Workshop of 1954 contributed significantly to film use in agricultural television. We plan that future workshops will be even more fruitful.



## FILMS IN EXTENSION

by

C. M. Ferguson

Administrator, Federal Extension Service, USDA

Use of films as a teaching tool in extension work is both an old story and a new story. The new story is their use in educational television. This workshop should have a marked influence in stimulating further advances in this area.

But before going into the television aspects, I believe it would be well to sketch the use of films by extension workers in connection with meetings, training programs, and related work. The Extension Service since its earliest days has relied heavily on the visual approach. Extension has used and still uses exhibits, posters, illustrated letters, photographs, and charts, and of course motion pictures.

Actual demonstrations in the field, in the home, and at meetings are examples of the audio-visual approach. People see and hear the message in concrete terms and by concrete example.

## Rapid Growth of TV

As you look at television today in the United States, you cannot help being amazed at its rapid and continuing growth. I understand that this Nation now has nearly 28 million television receiving sets in use and 356 television stations on the air. All these stations use film to a greater or lesser extent. The film projector and camera are as important and in many, many cases more important than the "live" television camera. In fact, quite a number of stations go on the air without "live" cameras at all. During its first 6 months, for example, Iowa State's WOI-TV used film or slides entirely.

## Country People Have TV, Too

Of very direct importance to the land-grant colleges and universities and this Department is the fact that of the television receiving sets nearly 6 million are non-urban. The day when the bulk of the Nation's farms can be reached by this new medium does not appear to be far distant.

Effective use of television in forwarding the applications of research findings to the farm and to the home, in the feed lot, and in marketing channels, is one of the basic challenges of the times. In those areas where extension workers are using television, it is proving to be a highly useful educational tool. At present, televised demonstrations and visual interviews are the most usual type of extension television program. Viewer-listener ratings show from 50,000 to 200,000 people for each program.



### Let's Not Get Thrown Off Balance

But let's not get thrown off balance in the use of this almost magical new tool. All of you have seen homes that have been labeled as "the gay nineties" period and have observed the elaborate machine-made decorations. That's a case where new tools were used without restraint or judgment. We need to appraise our educational methods carefully. That holds true for both the face-to-face methods and mass communications methods. We should use every method with the highest efficiency, but not in an isolated or independent manner. Each method can make its best contribution if it is meshed into the entire program and used to strengthen the other methods and give added vitality to the entire approach to learning.

### Workshops Increase Know-How

Workshops such as this are a means of increasing the know-how in the use of films in educational television and for the exchange of ideas as to what is ahead on the horizon. It seems to me that our sights need to be set high if maximum use of films in television is to be attained. Above all we should avoid getting in a rut in their use. The ups and downs in response to various entertainment-type television programs leads one to conclude that keeping up audience interest is not easy. Television packs a terrific impact; it brings the participants right into the living room, provided the viewers like their company. Unlike radio, you either pay full attention to it or you dial another station or turn off the set.

Television is making a decided impression on all communications media. It is setting a faster pace--clarity and conciseness are stressed.

Like all new media, television, including the use of films on television, offers infinite possibilities. At the same time it is well to remember that it isn't a panacea. Extension workers have found through experience and studies that effective results frequently require a combination of methods. In Iowa's series of television presentations on corn production, television was bolstered by coordination with field meetings and publications. Some twenty or more groups viewed the television presentations, many of which were on film. Each group had a moderator to lead discussions on completion of each broadcast.

### Visual Reporting

Television is not only an excellent "how to do" medium. It is also an excellent way of visually reporting progress and problems in agriculture and home economics and in 4-H work. Through the use of motion pictures, size, distance, and time cease to be a problem in television presentation. You can show a wheat harvest scene

during a raging blizzard, an ocean freighter loading farm products for export, or a research experiment at Beltsville. Without films, educational use of television would most certainly be greatly restricted.

Television offers many opportunities for reaching people who seldom if ever go to a meeting, write for a publication, or attend a demonstration. With the use of both "live" programs and the right kind of instructional films, the Extension Service and the land-grant colleges as a whole can bring counsel and advice to additional thousands.

### Farm People Want to Keep Well Informed

The Federal Extension Service and the State Extension Services are constantly concerned with the problem of not only reaching more people but of doing a more effective teaching job when they are reached. A recent Federal Extension Service circular by Miss Lucinda Crile on "Some Findings From Television Studies" brings together a good deal of pertinent information applicable to extension work. In view of the fact that very little research information is available on the use of television in extension work, the circular includes findings from research studies in related fields that may be of use to extension workers.

Among the studies that are briefed in this circular is one made in Delaware to get information on the mass communication habits of farm people. In the spring of 1952 interviews with a random sample of 280 farm owners and tenants were made, and it was found that almost 40 percent of them owned television receivers. But it is significant to note, too, that of this group interviewed, almost everyone had a radio, over 90 percent took a farm magazine, 82 percent took a weekly paper, and 63 percent took a daily newspaper. Farm people want to keep well informed. Evidently they are not going to depend upon any one medium for their information.

As agriculture becomes more complex, the task of helping them to be kept well informed becomes more difficult. Your work to make television a more effective method of communication will pay dividends in better farming and better farm living.

### An Effective Teaching Tool

Films are an effective teaching tool. The State Extension Services make wide use of films in connection with their various programs. Now with television the opportunity is even greater. In an address by Lester E. Cox at the Missouri annual extension conference in December, on new opportunities that television offers for extension teaching, he said: "There is no limit to the number of good films that could be used." I would just like to raise the question whether or not there will be enough good films.



### How Do You Judge a Film?

Just how do you judge the worth of a film for educational use? Here is the definition given by Edward McCoy, of Pennsylvania State University's Instructional Film Research Program:

"To film researchers it has become clear that the only way to judge an educational film is on the basis of how well audiences learn from it. Opinions of experts in the field, and even those of the audience, are usually wide of the mark. What you think of a film often has very little bearing on how well you can learn from it."

The Instructional Film Research Program at Pennsylvania State University (formerly Pennsylvania State College), under the direction of Dr. C. R. Carpenter, has thrown a good deal of light on educational or instructional films. As some of you may know, the research I have just referred to at Pennsylvania State University was sponsored jointly by the Navy and the Army.

### Educational Films Do Not Have To Be Super-Duper

Although this research referred to training film, it appears to me that it should have some application to educational films used on television. I gather from reports of this research that good educational films do not have to be super-duper, expensive jobs. In one of the reports the statement is made that of all the devices of mass communication, motion pictures and their counterpart, television, are unquestionably the most powerful for instructional purposes.

There is no doubt about it -- people learn from films. They not only learn but learn more in less time. And they are better able to retain what they have learned. Of course the films have to be good, not in the sense of being elaborate or expensive, but keyed to the job they are intended to help accomplish.

I am not here this morning to give you answers to your problems. I am not an expert in your field. My interest is one of encouraging any development that will help to shorten the timelag in the application of research findings to the farm and the home, and in marketing channels for farm products. Here in television we have a magnificent tool that can help to do that job. It is evident that motion pictures by television can vastly multiply educational impact.

Here in this workshop you have the opportunity to explore more fully this business of films for educational use on television. You can, through your combined creative efforts, do much more to advance this work than you could ever hope to do individually. The alertness of the land-grant colleges and of this Department to the challenges that television offers is evident by your attendance here at this workshop.

The July 1953 issue of the Extension Service Review featured television. In an article in that issue I stated that educational television provides an opportunity for a fresh and real-life approach to extension work. It gives a new opportunity to use some of the oldest and best methods, such as the method demonstration and visual aids. It gives the extension worker a tool for presenting a demonstration to audiences that are many times larger than can be reached in person. In that article I raised the question, "Did the television demonstration inspire the audience to go out and do likewise?"

### Stimulating Better Farming and Homemaking

Many fine farm films have been produced by this Department, the State Extension Services, and by industrial and other business firms either directly or indirectly concerned with agriculture. Some of them have had a tremendous influence in stimulating better farming and better homemaking.

A perennial problem is the fact that in most cases the number of prints of a film is pretty strictly limited. They cost money, as you know. Even large business concerns are hard pressed to take care of the demand for popular institutional-type films. The demand appears to be virtually unlimited for good educational-type films.

On television you can make every print reach far more people than you ever could by showings at meetings. But doesn't that create another problem? Aren't you confronted with the problem of having more films available? Isn't television going to use up your inventory of films at a much faster pace? Accordingly, isn't the problem of getting the most for the least money going to be ever more important?

### Films: A Means To An End

My best wishes go to each of you as you start your workshop. I know that it will be productive and of real value to each of you, and to the agriculture of this great Nation. In your endeavors here, keep firmly in mind that what you do is for the benefit of the farm people of this Nation and of agriculture in general.

Films are a means to an end and not an end in themselves. In closing my remarks to you, I'd like to leave with you this statement which Dr. C. R. Carpenter made in one of his research reports:

"One of the great neglected areas of human engineering is that of communication processes as these are involved in the mass media -- sound films, radio, and television."



THE JOB AHEAD OF US

by

John A. Morrow

Audio-Visual Director, NPAC

I am deeply grateful for the opportunity to talk to you. My visit will give me a chance not only to say hello to my many friends who are with the Department of Agriculture, but it will also permit me to get to know you folks who have gathered from all over the country to exchange ideas and techniques concerning the production, processing and distribution of agricultural motion pictures for television.

I feel that a man can do a better job if he knows the folks he is working with. We at Project Headquarters want to get to know you folks better and we will be looking forward to many happy and successful associations. We are aware of the value of motion pictures. Therefore, we will be interested in the findings and recommendations developed by you during this workshop.

I personally am looking forward to the exchange of new ideas and techniques which I am sure will be presented both by you and the technical consultants who are part of this program. I cannot say enough about this technical group because I have always gained so much from my associations with these people in the past.

The 15 years prior to my going with the National Project in Agricultural Communications have been devoted to the Washington scene. Here I have had an opportunity to see the Motion Picture Service of the Department of Agriculture grow steadily into one of the best and most important mass media shops in the Federal Government. This is certainly a tribute to the folks who are responsible for this operation. Whether we work at the national or at the state level, our efforts in the field of motion pictures are too often misconstrued by administrative groups. I don't have to tell you some of the discouraging results that occur when these situations arise.

When the going gets rough and when budgets have to be cut, certain administrators think in terms of curtailing motion picture activities because they consider them to be a luxury item.

Too many associate the value of motion pictures with information and/or propaganda and too few realize the true importance of the medium as a teaching aid or a teaching tool.

I have witnessed the rise and fall of motion picture services throughout Federal and State Governments and throughout the industry for the past 20 years. I and many others are grateful that, in spite of many setbacks, the motion picture services of the U. S. Department of Agriculture and the agricultural land-grant college system have been able to survive, and some have even come out on top.

Even though this is true, I would say that your work has just begun. It looks to me as though for the next decade you have an added responsibility to make more and better films on agriculture for use on television.

Your attendance at this workshop as representatives of land-grant colleges indicates that you either have or that you are about to take on this added responsibility. The results of your efforts from here on in will have a dual purpose. You will be concerning yourselves with motion pictures not merely as teaching aids to reach thousands of people through meetings and other types of extension activities, but you will also be faced with the task of telling part of the agricultural story to millions of people who are living in our urban and city areas. This, gentlemen, is a big and important responsibility.

Before we get into the challenge of motion pictures and the important role they play in the field of mass communications, I would like to tell you something about the National Project in Agricultural Communications.

The staff of the National Project in Agricultural Communications feels that it is a part of the U. S. Department of Agriculture's land-grant college system. Therefore, we will have an interest in furthering your work as it relates to a better communications program in the field of agriculture.

The National Project in Agricultural Communications is financed by the W. K. Kellogg Foundation and is sponsored by the Association of Land-Grant Colleges and Universities and the American Association of Agricultural College Editors. We work in cooperation with the USDA, the agricultural industries, and the mass communications industries throughout the country.

Some time back, the American Association of Agricultural College Editors, the group better known as AAACE, realized the importance of professional improvement within their ranks. They formulated a program and set up objectives which would not only lead to their professional improvement, but the same program would also provide similar advantages to all agricultural information and extension workers by improving mass communication techniques and skills.

You who are engaged in the dissemination of agricultural information will be in a better position to provide a more complete service to all of the people through more effective use of mass communications.

We at Project Headquarters realize that the mass communication field and the field of agriculture are vast and complex. Because of this, we have asked for guidance from the people who have devoted their lives to teaching and dissemination of agricultural information. Our efforts at Project Headquarters are, therefore, governed by a board of control appointed by the Association of Land-Grant



Colleges and Universities. Board members include a land-grant college president, experiment station director, extension service director, agricultural magazine editor, radio and television farm director, USDA information specialist, three agricultural college editors, and a representative of the host institution, Michigan State College.

This board of control will assist the staff members to determine the areas of agriculture and the areas of communication in which we shall work. We have listed four areas of major activity-- Research, Training, Service, and Creative Programming. I would like to briefly give you an idea as to the types of projects we already have under way.

A committee of deans of the schools of agriculture have asked the Project to assist them in the research, writing, and preparation of a brochure to be entitled "Careers in Agriculture." This brochure is being designed as a national publication to arouse the interest of high school students and their families and to point out to them the wonderful opportunities that exist in the field of agriculture -- opportunities not necessarily limited to farming, but advantages and opportunities also available from agricultural industries.

The second large project that we have undertaken is one initiated by the Western Agricultural Economics Research Council. The Agricultural Economics Writing Short Course being held at Corvallis, Oregon, is being designed to assist the research economist, the extension economist, and the agricultural editor to present a more vivid interpretation of agricultural economics to the people of the United States.

The emphasis will be on improved writing; however, we are making arrangements to employ one of the top-flight consultants in the field of publications to present a visual demonstration on how economic writing can better be visualized to make it more attractive and meaningful to the readers so that these publications can compete with other types of contemporary periodicals which the masses of the people read daily. It is our intent to make both visual and audio recordings of this conference covering the sessions from the planning stages right through the set of recommendations that are to be developed. In this way, we will have on tape and on film an opportunity to present these findings to other groups throughout the country who are faced with similar problems.

The third project that we are engaged in is a documentation of television extension workshops. We are preparing four kinescopes which deal with the following areas: The values to be derived from the use of television; types of programs extension people can do best on television; how to plan television programs; and how to present television shows. These four kinescopes, together with supplementary materials, will constitute a kit which can be used by extension editors throughout the country to offer training in the medium to extension workers.

We are contemplating two national workshops in which I am sure most of you people will be interested. One is a national communication workshop which is being designed to offer a better understanding of communications within the USDA land-grant college system. This conference will point up the use and relationships of the college facilities to those available from both agricultural and mass communications industries.

It is hoped that with a better understanding of the values to be derived from effective use of mass media and mass communications, both the administrative and technical groups of the land-grant colleges will have a better opportunity to rally their forces and take their part in informing the American public as to the importance of agriculture. They will be better equipped to accept their responsibility of telling a complete and more effective agricultural story. This should result in agriculture taking its proper place in the total economy of the United States.

Another national workshop that is being planned is a national television workshop. The planning of this is in the hands of the Television Committee of AAACE. I don't have any specific information as to the type of the proposed content thus far, but again we are assuming that a common understanding of the problems as they exist and possible solutions to these problems will assist everyone to make better use of this important medium.

NPAC is involved in another project which will probably hit more closely to the interest of this group. In cooperation with the Television Committee of AAACE and the USDA, we have invited some 20 leading representatives from the fields of agriculture and the television and motion picture industries to get together to determine a set of recommendations to facilitate the exchange of motion picture stock footage, film clips, and completed films for agricultural television programming.

We at Project Headquarters are not interested in establishing this type of service or facility. We are more interested in stimulating all who are concerned to get together to support this type of activity so as to make more and better films and film materials available for television production. The findings and recommendations of this group will be published by NPAC and distributed to the land-grant colleges, agricultural industries, and to the motion picture and television industries with the hope that a recommended plan of operation will gain the necessary support from interested groups so that this type of service can be established at the earliest possible moment.

The above are just a few examples of the types of projects that NPAC will concern itself with. I would like to say that thus far we have been stimulated by the thinking of the people from the land-grant colleges and from certain people of agricultural industries and the communications field. It is not our intent to dream



up wild ideas and impose these upon information workers and others engaged in the dissemination of agricultural information. We would like to continue to operate on the basis of a two-way exchange. If you have any ideas for a project which would have either regional or national importance in the field of motion pictures, by all means submit them to us for consideration. Of course, we are not in a position to do tasks which are local in nature. Our interest is in providing assistance and help on either a regional or national basis so that we can assist in improving mass communications within the field of agriculture.

Now I would like to put on my other hat and talk to you as a motion picture producer about motion pictures and their importance as I see it. When I first reported to Project Headquarters, I found many people talking about communications in terms of the written or spoken word. Motion pictures were left out of all of the discussions. For the first two or three weeks I was a little concerned. I was wondering just what I was getting myself into. Our being here today is a good indication that we were able to sow seeds and watch them sprout -- seeds which portray the value, the place, and the importance of motion pictures in the field of mass communications. The AAACE group has been trained in the field of journalism and its members are specialists in the media of newspapers and publications. Therefore, in the past, emphasis within the land-grant college system has been devoted to the printed and spoken word.

It is our job to convince our administrators of the importance and value of motion pictures. I don't think I have to tell you, but certainly the value of the motion picture to motivate, to train, to create attitudes, and to reach many, many people -- thousands more than an extension worker could do in a series of meetings -- are some of the points that we should keep with us at all times in selling the importance of our ware to our superiors.

During the past few months I have been interested in finding out from the land-grant colleges the types of films that they feel are needed to tell parts of the agricultural story to both the farm groups and the city and urban population. Many people throughout the country have advised me as to the appalling scarcity of the following types of films:

- (a) Report type of films dealing with either scientific developments or how-to-do-it techniques both for farm and home demonstrations.
- (b) The result type of demonstration films which show either the farmer or the homemaker engaged in successful endeavors which are the results of certain advancements that have been made either in farming or home development.

- (c) Training films for training extension workers in the many skills and techniques that they require to carry out their extension responsibilities.
- (d) The documentary or incentive type of film which is designed not only for the farm family but also for the American people as a whole to inform them as to the latest developments in the field of agriculture, and to show the results of these developments to the average family by pointing out the benefits to be derived.

These are but a few categories of films that we as a group should be thinking about. I know most of you are thinking about your local problems -- lack of equipment, lack of money, administrators not being sold on the value of a motion picture program. These, coupled with many other local problems, present a barrier. These I am sure have certainly contributed to the inadequate number of the proper types of agricultural films to tell interestingly and dramatically vital parts of the agricultural story.

I am reminded of a talk I heard recently, made by a very good friend of mine who happens to be an agricultural extension editor at one of our leading land-grant colleges, and I quote:

"The number of movie projectors within the counties has doubled and the result is a great increase in demand on our film libraries. The service forces proved the value of visual education during the war. The demand for educational movies has nearly doubled each year for three years. But our supply of new agriculture films gets fewer and fewer."

The answer to satisfying the needs of this gentleman and all who are interested in the dissemination of agricultural information is more and better motion pictures -- motion pictures designed to reach a number of different audiences -- those designed to help extension workers carry vital "how-to-do-it" messages to farm families. The documentary and incentive type of film designed to inform all of the people as to the important areas of agriculture and the latest developments that are being made.

I don't think that we can put the entire blame for the barrier that exists onto the administrative groups. We have got to find out for ourselves just what some of the reasons are for our not being able to penetrate this barrier. I might be wrong; however, here are some of the reasons as I summed them up:

There is a lack of agricultural films because:

- (a) Too many times we consider ourselves merely as film technicians.

- (b) We concentrate too much on the techniques of production and we overlook the importance of the subject matter.
- (c) We underestimate the importance of simple presentation of subject matter.
- (d) Our films do not always reach our intended audiences.
- (e) Too many times we are too concerned with high-priced pictures. We are trying to compete with commercial studios. We feel that an agricultural film is not effective unless it contains trick shots, special effects, elaborate sets, large casts, and all of the other items which lead toward high budget films.

At lunch just the other day a friend of mine who has been in the field of extension work for the past 25 years told me that one of the reasons his department did not have an adequate motion picture service was because of the high costs associated with motion picture production. For example, his on-campus motion picture unit, using his equipment and his stock, charged him \$6.00 an hour to get motion picture footage of simple farm demonstrations. Six dollars an hour at 40 hours a week adds up to \$240.00 a week. This compares very favorably in many areas to union rates, and in certain areas of the country it exceeds the union rates being paid to professional cameramen. I think it is a little out of line that a motion picture service of a land-grant college should charge an extension department \$6.00 an hour for shooting motion picture footage.

- (f) Too many times some of us who are engaged in providing a motion picture service are not willing to build from the bottom up with a solid foundation, and too very few times do we have the proper types of films to convince our administrative groups that more effort, time, and money should be devoted to this important medium.
- (g) Too many times we are not good enough salesmen to convince our directors and our administrators of the merits involved in the exchange of ideas so as to be able to attend conferences, workshops, and professional sessions which would add to our professional improvement.

I was recently asked by one of the directors of extension whether I thought this workshop was important enough to have him pay the travel of his motion picture specialist. I am happy to say that one of you is attending this session because of this discussion.



We have got to be able to sell our product and, mind you, I am not saying sell ourselves. You have got to know what you are doing in reference to the production of simple, low cost, effective motion pictures. We have got to work out a procedure and a facility for the exchange of ideas which will tend toward regional production of motion pictures. Obviously this will reduce our budgets.

By sharing the production workload, we will all have more time to produce better films to accomplish our objectives. Within our group we have to take the initiative in the matter of an exchange of motion picture films, stock footage, and film clips for television programming.

We should take an active part in determining the areas of agriculture that can best be visualized through motion picture presentation -- motion pictures designed for use at meetings and motion pictures designed for television. We should also be interested in taking the initiative in working with agricultural industries and the motion picture and television industries in reference to the types of programs that can best suit their needs. This involves the matter of sponsorship that all of us should be discussing at this time with our department heads.

Should we wait until Allis-Chalmers, the Ford Motor Company, General Motors, the American Plant Food Council and others come to us with an idea for a motion picture or a television program? -- or should we, together with subject matter specialists, outline certain types of films which are needed -- films which can best be produced by commercial firms and sponsored by industry or trade associations who take an active part and who have an active interest in the field of agriculture?

In summarizing I would like to reiterate the following:

(1) There is a definite place for motion pictures in the mass communication program of the land-grant college system to teach, to train, and to inform the masses of our people. We can no longer think only about the farm group. The farm population represents 15 percent of the total number of people in the United States. It is our job to sell the agricultural story to the 85 percent of the masses of people through motion pictures as part of television.

(2) We have got to realign our sights, think in terms of short, effective, low-cost films--films which can be used in whole or in part by county agents and by commercial television stations to supplement their agricultural programs.

(3) We have got to be willing to be practical businessmen and demonstrate our ability to do a better job with the budget and the equipment on hand.

(4) We have got to accept the leadership and the challenge which is thrown into our laps and, even though we represent a



minority group in the agricultural information field, we are a group which can contribute much to the dissemination of vital agricultural information.

The whole story of agriculture and the services to be rendered in the land-grant colleges is so basic and so dramatic that no one media can do it justice. We must utilize all media and combinations of media in rural and city situations to gain the interest, attention, and backing of farm families, community organizations, bankers, industrial groups, and the general public.

We are living in a competitive age whether we are dealing in ideas, services, or products. We have got to sell agriculture and the values of agriculture to all the people of the United States. We have got to point out that the city people are dependent upon the farm for food and clothing, but by the same token, the farm family is dependent upon the city for water, gas, electricity, and other products for better living.

In doing all of this, the motion picture, either by itself or as part of television programming, can play an integral part. We must not default in our responsibilities. The challenge is here, and I certainly hope that all of us, to the extent of our abilities, will accept the challenge and do our part to provide a better service to all of the people through more effective use of mass media and mass communications.

ALL THAT FLICKERS ISN'T TV

by

Kenneth M. Gapen  
Chief, Radio and Television Service  
Office of Information, USDA

It's often said that a good-quality motion picture makes a good-quality TV film. Although this is not necessarily always true, it is a good guide to go by. Motion pictures in themselves are not television. They are one of the visual aids that can be used on television. And as such, they are one of the best. In the next few days of this workshop, you're going to see and hear a good deal about making motion pictures and film clips for television.

Right now let's consider television as a medium of communication, and motion pictures as one of the visual aids you use on television. In doing so, I would like to point out to you as film photographers who are interested in television the responsibility you have for not filming certain stories. Some of them may be obvious to you. I'm frank to confess they weren't all obvious to us in the Department and we've used the age-old trial-and-error method to find them out. A rule we apply is this: Why do it on film if it can be done another way -- a cheaper and better way? It forces you into a type of analytical thinking that eliminates

some film stories for you and makes the ones you do much better than they would have been.

Why, for example, film a table-top demonstration, when that demonstration can be done in the studio live -- and much more effectively?

Why film a sound-on short clip or interview with a subject matter specialist when with very little trouble the specialist could appear at the studio?

Why film a story that could be effectively done with still pictures already on hand, or by chalk on blackboard on camera, or when the real things can be brought to the studio?

There are exceptions, of course. You may want several uses out of a film, but consider that carefully, too. You may be able to do the same program several times and still not use film and still have it cheaper.

Use film for --

The things that can't be done in other ways.

Trips outside the studio.

Equipment or animals or processes too big to bring into the studio.

Time-lapse stories.

Field events.

In our package program service which began last July 1, we've had the added factor of duplicating our agricultural feature packages to service some 80 television stations at the present time. Where possible, we still say: If there's a better and cheaper way than film, let's find it. This is no reflection on film -- to the contrary, the value we place on films in television is evident when more than half of the packages we have produced to date have been all or in part on film.

## FILMS IN COMMERCIAL TELEVISION

by

George A. Dorsey

Program Manager and Film Director  
NBC Television - WNBW, Washington, D. C.

I'm sure that most of you realize that film plays a tremendously important part in commercial television. I wonder if you know just how important it is? The amount used is rather staggering. A quick analysis of a typical broadcast day will show you what I mean.

For instance, at WNBW, the NBC station here in the Nation's Capital, we are on the air an average of about 17 hours per day, 7 days per week. Of this 17 hours, we get about 10 hours in network service. Of the 7 remaining hours which must be programmed locally, we find almost 5 hours a day on motion picture film. If you are accustomed to thinking of film bulk in terms of footage, that would be almost 11,000 feet of 16mm film per day.

The figures given here include only film programs. They do not include news film, short film clips used as production aids in live programs, film commercials, or film public service announcements.

Let me point out that WNBW is not at all unusual in this respect. The program pattern of the other three local stations is similar. In fact, a recent survey by the National Association of Radio and Television Broadcasters shows that in the smallest communities of television station operation, film programming is used twice as much as live programming. In any size area of television station operation, more film hours than live hours are telecast.

But before we get too far into the subject of films for commercial television, it might be well to first discuss briefly the subject of commercial television itself. By knowing something of the operation of the television station and its relation to the network, we can more easily understand the problems of adapting motion pictures to the relatively new medium of mass communication.

Most television stations are independently owned but are affiliated by contract to one of the major networks. On the NBC network, for instance, only 5 stations are owned by the net itself. So-called network service programs are generally originated in New York, Hollywood, Chicago, and Washington. For the individual television station, this aggregate of network programs becomes the nucleus of the station broadcast schedule. Within and around this nucleus the local station adds programs of local interest designed to entertain, to inform, and to serve the local community.

In the early days of TV virtually all network programs were live. There were a number of reasons, but I suppose that the most significant one was a general feeling that television should not lean



on film as a crutch but should stand on its own. In 1951 the network schedule on NBC included  $2\frac{1}{2}$  hours of film programs per week. At the moment our network schedule includes  $5\frac{1}{2}$  hours of film per week. This is  $5\frac{1}{2}$  hours out of a total of 68 network hours, so you can see that network programs are still predominantly live. Of course, many of the live programs contain film in the form of commercials or in the form of clips to aid production. The  $5\frac{1}{2}$  hours I refer to are entirely on film.

You may ask at this point why film represents such a small share of the total network hours. Well, New York, Chicago, and Hollywood are centers of network origination. They are also talent centers. They also have a number of studios and converted theaters available. They also have adequate storage space. With these things at your disposal, you can do a show live if you want to. The choice of film becomes an arbitrary one determined by desirability of reruns of the show, extent of outdoor action, and production convenience.

Programs from the net appear in general in what is known as network option time--that is, from 7-9 a.m., from 10 a.m. to 1 p.m., from 3-6 p.m., and from 7:30-10:30 p.m. Any time not sold by the network may be used by the local station, but additionally a period of 30 seconds is available at the end of each program segment.

This is the station identification period, and it is within these periods that we find motion picture film widely used. After the network chain-break cue (on NBC, the familiar chimes), the 30 seconds is broken into two parts; first, the 20-second announcement, and then the 10-second station identification. Both of these are available to local and national spot advertisers. For the 20-second spot, the message is generally on film, although slides or telop cards are sometimes used. Even on the 10-second spot, film is used by some advertisers, but here the slide is more frequent. If two films are used, one for each spot, they can be run on separate projectors, or they can be spliced to run successively on one projector. In either case, it is obvious that with a total of 30 seconds available, the films must be of precise length, the time required for the projector to get up to sound speed must be accurately known, and the starting leaders must be threaded uniformly at a predetermined point. All this because time is of the essence. Television must live by the clock. Therefore, film intended for television must conform. It must be accurately produced and edited to fit the air-time requirements.

Since a 30-second period follows each program, it can be seen that a 30-minute program actually runs only  $29\frac{1}{2}$  minutes. Similarly the quarter-hour program runs  $14\frac{1}{2}$  minutes and the 5-minute program runs only  $4\frac{1}{2}$  minutes.

In a half-hour program three minutes are allowed for commercial messages. Usually this time is split into three 1-minute announcements. Therefore, in addition to the 10 and 20-second films already

mentioned, there are a great number of 60-second films used. When any of these 10, 20 or 60-second availabilities are not sold, they are generally used either for station promotion or for public service announcements. Because of their very short duration, the 10's are not used for public service messages to any appreciable amount. However, both the 20's and the 1-minute's are widely devoted to such interests as the Red Cross, the Community Chest, Civil Defense, and to your old friend, Smokey the Bear. Now suppose you want to prepare a series of 20-second films for television use. You must remember that your film will not be run independently necessarily. It may be spliced to the head-end of the 10-second film to follow. It may also be spliced to the tail-end of a preceding film show, and the whole sequence of three films may be running on one projector. As a result, the length of the film must be governed by its visual component. It must be exactly 20 seconds long in running time, or exactly 12 feet.

The thing to remember here is that on a composite print the sound must be advanced approximately one second. Thus, if we did not make suitable adjustment, our 20-second film would turn out to be 21 seconds long. Because of the splicing problem just mentioned, this cannot be tolerated.

Furthermore, every time our film is spliced to another film, we lose at least one frame. For this reason it is desirable to allow visual freeze frame protection at both ends. NBC recommends a half-second protection at each end of the film. This plus moving the sound track back to within the protected visual length results in approximately  $1\frac{1}{2}$  seconds dead audio, only 18 seconds of sound, and finally a half second of dead audio as broadcast.

If the film is prepared as recommended, it can be used many times without damage to the sound track and without noticeable effect on the picture.

Let us move along now from network programs and station break availabilities to local option time, the time in which the local station assumes program responsibility and the time in which most film programs and most public service films make their appearance. Specifically, and again using my own station and network as the example, local time is before 7 a.m., from 9-10 a.m., from 1-3 p.m., from 6-7:30 p.m., and from 10:30 p.m. to sign-off. As I have already stated, WNBW programs about 7 hours per day locally, and of this almost 5 hours is on film.

The film programs used in local originations can be broken down into one of several basic types -- features, westerns, short subjects, syndicated films, kinescope recordings, news and special event film, and free film.

Features, westerns, and short subjects are all films which were produced originally for theater use. Of course, westerns are features also, but we think of them as a special type because they



are generally not mixed with other types of feature material of a more dramatic nature.

At WNBW we use 15 regular features per week and 6 westerns per week. Since the other local stations use substantial numbers of features and westerns also, it is easy to see why each showing is not a first run. For the last few weeks I have been fortunate enough to be able to schedule an average of 4 first runs per week, and for the past couple of years I have been able to obtain very good quality first runs once a week for our principal sponsor of feature films.

The major Hollywood studios still have not released their backlog of film to television. Every time there is an announcement about 3-D, or Cinemascope, color television, or video tape, there is speculation that the major studios are about to release a large batch of features for television. Well, they haven't done it yet, and I certainly would not predict that they ever will.

The features now being used come from the smaller companies and from independent producers. For the most part they were intended to be what theater people refer to as low budget class B movies. They played in small houses and as the second feature on a double feature bill. Actually, this turns out to be an advantage in large metropolitan areas since most of the viewing audience sees the film on television for the first time.

With one television area using approximately 50 features a week and with much of the product being withheld, there is, of course, a scarcity of material. This will explain why so many British pictures are shown. The British have less reason to withhold films since showing on TV in America will have no harmful effect upon theater attendance in England.

The most recent development in adding to the supply of features available has been the acquisition by one of the distributors of a group of Italian films. Foreign language films with English subtitles have never been used with any success because the audience is unable to read the titles on the TV size screen. Also, the placement of the lines was too close to the bottom frame line, and on many receivers were not seen at all. This is too tedious for the viewer even if it works. On this new group of films a whole new English voice track has been dubbed and synchronized very closely with lip movement. It will be interesting to note what public reaction will be to this experiment.

Most of what has been said about features applies to westerns as well. The principal difference as far as TV use is concerned is that since all are set in the period of the "Old West," it doesn't make as much difference when the film was produced. Also, it doesn't seem to make as much difference if the film is a first run or a sixth run. My own personal theory about this is that it is a matter of child psychology. We know that there are many adults



who enjoy westerns, of course, but the primary appeal is to children. If you have children of your own, you know that they enjoy hearing an old favorite story more than hearing a new one. They like to be able to predict what will happen. It is my belief that this is what accounts for the popularity of westerns on television.

Some short subjects have been adapted to TV, but they are generally not in great demand, except for cartoons, because the running times are not convenient for TV program segments and because most of them are not related in any way to other shorts. Television programs usually run in multiples of 13 weeks - 13, 26, 39, or 52 weeks. Most people are creatures of habit, and they like to see the same kind of program at the same time each day or each week. A group of 6 short subjects is almost useless as salable program material unless they can be grouped with at least 7 more shorts and unless a common denominator of interest or appeal can be found so that the films can be handled and promoted as a series.

Syndicated films are the films produced for television, and there are now quite a few of them. Practically all of them are either half-hour or quarter-hour programs in groups of 13 or 26. Included are such programs as Victory at Sea, Badge 714, Hopalong Cassidy, Cisco Kid, Boston Blackie, Foreign Intrigue, and so on. These films are of a regular standard length each week, allowing for the standard commercial time and for standard open and close. The usual format provides that the film go to black near the open, at the middle, and near the close. In that way the film can be shipped to the local station where local commercials on film can be spliced in without doing a major re-editing job on the program itself. Of course, if the local advertiser is using slide or live commercials, the projector is stopped and rolled again 5 seconds ahead of the end of the commercial. In this 5 seconds the projector gets up to speed, and the film can be switched onto the air without sound wow at precisely the right time.

Since these film programs have been prepared to permit easy insertion of local commercials on those occasions when the program is sustaining, the 3 minutes blank time must be filled. It is in situations such as this that the 1-minute public service announcement on film comes in handy as an operations aid. However, since we are still governed by the clock, the public service films must be pretty close to 60 seconds in length so that awkward padding or abrupt editing is not required to make the whole package fit 29½ minutes.

Kinescope recordings were mentioned as one of the types of film handled. Physically this is nothing more than a 16mm composite print motion picture. We don't think of it ordinarily as a film because it is really a sort of network gimmick. The primary purpose of the kinescope recording is to provide network service to those stations which are not physically tied in to the net by cable or micro-wave relay circuits.

Sometimes stations which are connected stations wish to delay a network program for some reason. When they do, it is possible to order a kinescope recording. Service is normally on a 1-week delay but can be provided much sooner if necessary. The name comes from the fact that it is the face of the receiving tube (or kinescope) which is photographed, and thus it is simply a combination picture and sound recording of a television show as broadcast.

News and special events films are almost self-explanatory. Practically all television stations use news film locally in their news programs. Some of them have news gathering staffs of their own and one or more news cameramen. Other stations simply subscribe to one of the news film syndication services.

All of the film discussed so far is leased or paid for directly by the station. In addition, there is the class of film known as free film. The station is not charged for the use of the film because the owner or producer has some reason for wanting it seen by as many people as possible.

The station is offered various kinds of film programs. Some of them are well done excellent films, and some are not so good. Most deal with some subject or campaign which is thought to be in the public interest. Some come from governmental departments and agencies, some from relief organizations, some from business interests or associations of certain types of manufacturers or retailers; some are from travel agencies or transportation companies.

From the station's point of view, the main thing wrong with free film is that it is not packaged properly; that is, not enough of it is grouped into series of films so that the station may avoid individual handling and correspondence for each and every film. For instance, on WNBW I have a half-hour strip at 2:30 to 3 p.m. five days a week. Instead of contacting people every day for one film for a particular day, I try to find someone who can supply one film a week for several weeks. If I am successful in lining up sufficient broadcast material in this way, then I only have five people to deal with; we get the films on a regular reliable schedule, and we are far enough ahead in bookings to make maximum use of the material broadcast through promotion and title listings and better over-all presentation.

Now that we have covered the various types of films encountered in station operation, we should examine equipment and handling methods. Most TV outlets operate exclusively with 16mm film. WNBW in Washington and stations in New York, Chicago, and Hollywood are equipped for 35mm as well. Film programs fed to the network from one of the key stations are mostly on 35mm, but when the film program is originated locally from a print, which is shipped from station to station, it is nearly always a 16mm print. This, of course, is the result of the high installation cost of 35mm equipment and of the high shipping costs for the much bulkier, much heavier 35mm films.



Projection equipment ordinarily consists of at least two and sometimes three or more 16mm machines. Usually the motion picture projector is in a cluster along with a slide projector, and perhaps a telop machine for projecting from opaque cards, with the whole cluster being fed into a single iconoscope television camera by means of multiplexing mirrors. In regular operation only one of these devices is used at a time, but it is possible for certain effects to superimpose two pictures at once on the photosensitive element of the camera tube. Except for the mirror arrangements to permit multiplexing and physical grouping of equipment, projection is directly upon the mosaic of the camera tube. Both 35mm and 16mm projectors are quite similar to ordinary machines except for a special rotary shutter which is necessary to match the 24 frames per second projection speed to the 30 frames per second scanning speed of the TV system.

The system does require, however, that all film be projected at sound speed whether or not it is a sound print. Also, even if there is to be no sound track, the film should be printed on sound stock. This keeps sprocket hole noise off the air.

The station has very little film on hand as library material. Most of it is shipped in by railway or air express, is on hand for four or five days, and is then shipped back to the distributor. After it is logged in, it must be previewed off the air before it can be telecast. This requires at least two more 16mm sound projectors. Most stations have some sort of continuity acceptance person or department whose job it is to handle this previewing. Of course, as this is done, a physical inspection of the film is gained at the same time.

The film must satisfy not only the normal standards of decency but should avoid taking sides in controversial matters unless both sides of the question can be represented. Acceptance standards must be quite rigid since the station has no control over the audience which may be in the home as well as in the clubroom, which may be quite adult, or which may be quite juvenile. On the free films, we must decide whether product or company mentions are justifiable credits or whether a free commercial announcement would result from use of the film. After all, the station is in the business of selling advertising and cannot afford to give it away. Continuity acceptance is too big a subject to cover here, so let it suffice to say that for each hour on the air with film, an hour is spent in previewing, and another set of projectors must be available for the purpose.

Next comes the editing process. This is not production editing but editing necessary to fit irregular film lengths into the regular time segments.

Of the types of film mentioned, only syndicated films and kine-scope recordings arrive at the station in a state of readiness for

broadcast. Most of the others must be tailored to fit. This is particularly true of feature films which are often programmed in 1-hour shows. To allow time for commercials and to open and close the program with slides and copy, it might be necessary to cut the feature length film to 53 minutes. Nobody will suggest that this is an ideal situation, but since there is no uniform running time for features, some program time must be selected and individual films must be edited or padded to fit.

In addition to the editing, commercials must be pulled from the file and prepared for use or perhaps spliced into a film program. Cue marks must be put on the film if they do not already exist. The cues are necessary for switching purposes so that the engineer on duty knows when to bring in a slide or when to switch to live studio at the end of a film segment. To accomplish all this there must be professional work tables, pairs of rewinds, cue punches, blooming ink, china marking pencils, splicers, footage counters, viewers, and sound readers.

After telecast the films must be reassembled as received and shipped out again. Reassembling is not difficult, because editing is done in whole sequences and not by scene-by-scene shortening, and the points of deletion have been marked with china marking pencils.

And now that our film has been shipped back to its owner, I hope that I have given you a general insight into the film operation at a typical television station. I have covered types of films used, and the operational problems of using them. I have not gone into the specifics of gamma characteristics, density ranges, contrast, and so on because this is a problem of photography and laboratory technique. For information on these and similar subjects, I recommend the papers and pamphlets available from the film manufacturers and from the Society of Motion Picture and Television Engineers.

#### THE USDA TV PACKAGE PROGRAM SERVICE

by

Jules Renaud, Radio and Television Service  
and

Gilbert R. Courtney, Motion Picture Service  
Office of Information, USDA

You are here to learn about films for television. Currently the Department of Agriculture is engaged in a television effort known as the USDA TV Package Service. This service is an outgrowth of research carried on by the Department for several years to determine the most effective ways to visualize agricultural information. A year ago a few individuals were chosen as "guinea pigs" and used sample packages based on information gathered previously. The present program is a continuing development of these early packages. It is made possible by a Congressional appropriation made for the



first time this year. Much has been learned from past experiences and we expect to learn much in the future.

As of January 1, 1954, 80 farm television directors or extension television specialists are receiving this service. An estimated 18,000,000 television sets are in the receiving area of stations receiving the packages.

Every Friday identical packages are sent to those on the mailing list. In addition to these regular weekly packages, the Department sends special or bonus packages and materials from time to time. These packages are of the same physical make-up, but are on timely topics that do not lend themselves to regular scheduling, or topics that may be of regional interest only.

Quarterly listings of the package topics and the general type of visualization are sent well in advance of the beginning of the quarter. From this schedule the program director has a general idea of the stories to be covered in that 13-week period and can more effectively plan his programs. He may even arrange for local subject matter specialists to implement the Department's materials.

At the present time, funds available limit distribution to stations, land-grant colleges, and others who have a regular TV farm program or outlet on which these packages will be used. To begin the service, the individual fills out a check-list and sends it to the Radio and Television Service, U. S. Department of Agriculture, Washington 25, D. C.

Package subjects are chosen by the Office of Information, based on the requests of the various agencies. During preliminary discussions with agency information or subject matter specialists, it is decided what films, slides, art work or other visuals will be used. Agency personnel are also asked to supply their ideas on the scope of the package and to provide background information. A technical adviser is also requested to help the Radio and Television Service (and the Motion Picture Service if film is used) check the program content.

Non-film visuals released by the Department include slides, posters, art work, and actual live objects. Included among such objects are tree seedlings, chestnut bark, orange powder, fertilizer from feathers, flameproof cotton, plastic overshoes made from animal fats, and mud "pies" treated with soil conditioners.

In producing the film portions of the television program, the Motion Picture Service has tried many methods. It has encountered only the usual production problems -- the same ones met every day in film work. Most of these will be covered in detail in the later technical sessions. In general, there have been three types produced to date: Those involving new shooting; those made from stock footage; and those consisting of shortened versions of existing films.

For our film features involving new photography, we have kept within the nearby areas. The Research Center at Beltsville has offered and will continue to offer countless worthwhile subjects for photography. Films of a new meat-type hog and pasture fertilizers are two of the subjects shot there recently. The MPS sound stage has been used on a number of occasions to shoot features for the television program in whole or in part. In addition to these standard inside facilities, the Service has adapted one office to serve as a small studio.

This room has been acoustically improved, and has as standard equipment a 16mm Auricon single-system camera, a tape recorder, and a special direct hook-up with the optical recording equipment on our sound stage. It might be well to point out that single-system photography has not as yet been used for release outside the Department. All work involving sound, whether synchronous or not, has been done on our optical system.

In dealing with stock film, we have been very fortunate. Most of the subjects selected were covered quite well either by footage available here in the Department or with other government agencies. In some instances, however, stock film has been combined with additional new photography. One stock film subject, ATOMS FOR AGRICULTURE, is a combination of USDA, Atomic Energy Commission, and commercial footage. As source material for this subject, we were able to obtain a 35mm composite print, several 16mm silent prints, and one 35mm silent print. From this basic material, we made 16mm dupe negatives and prints.

In addition, on this particular subject it was necessary to re-record synchronous sound from the 35mm composite and re-sync the resulting 16mm direct positive sound track with the 16mm reduction print. Since this subject was released with sound track throughout (some films are sent out silent with suggested script for reading by local announcers or specialists), it was necessary to again record this synchronous sound with non-synchronous commentary.

In using stock footage, we avail ourselves of the best possible quality, going back if possible to the original. When the original is not available, we dupe from the best print at our disposal. Where stock film is used in conjunction with original, special care must be taken to see that signs or significant action are consistent throughout. When we find ourselves in a position where such inconsistent footage must be combined, we use the simple expedient of flipping parts of the negative over, i.e., splicing cell to cell as opposed to splicing cell to emulsion. This, however, is not a recommended procedure. Black-and-white dupes from color original and prints have been successfully used on a number of occasions.

Using a shortened version of an existing film offers somewhat of a problem. But these problems are not insurmountable, and this valuable source should not be forgotten. Many films, although too



long for televising in their original length, can be cut down to presentable size; and at the same time retain much of their original interest and flavor. We performed such an operation with a very popular film entitled A TREE GROWS FOR CHRISTMAS. Up to that time no films sent out under the package service included a musical background. The recording technique used in the original version was usable for our purpose. Fortunately, the sequence blocks coincided with the sound "fades," thus we were able to lift whole sections that told our story when reassembled. The production technique involved this simple lifting operation, reassembly and rerecording. All such films, however, are not so adaptable. Although the picture sections may perhaps tell the story, the comment and musical background may be so mixed as to prevent removal and reassembly without a noticeable "jump" in the sound; however, we have found it wise to study existing films for possible use.

We have found that the package service has met with favorable response from farm television directors in all parts of the country. We are anxious to have this service reflect the work of all parts of the Department. In addition to the excellent cooperation we have had from information officers, we would be glad to receive any suggestions you may have.

GREETINGS FROM OHIO

by

Sam Steiger

Assistant Extension Editor  
Ohio State University

Greetings from Ohio, the 17th State! In addition to furnishing seven U. S. Presidents, Ohio is presently providing the Administrator of the Federal Extension Service, C. M. Ferguson; the Governor of the Farm Credit Administration, "Cap" Arnold <sup>1/</sup>; the Associate Leader of the 4-H and YM&W Programs, C. C. Lang; and other national leaders. Ohio is the birthplace of the 4-H Clubs and home of the founder, A. B. Graham.

The Agricultural Extension Service in Ohio is very much interested in television and is devoting considerable effort toward effective use of this medium of mass communication. At the state level we are producing two regularly scheduled weekly TV programs. For 5 years, a "how-to-do-it" demonstrational-type program called "Magic Window," featuring home economics subjects, has been televised over a local commercial station. A Sunday consumer information show called "City-Farm Extra" was conducted for 52 weeks, using RMA funds. This series of programs taxed the ingenuity and resourcefulness of the Extension Service. As a result, practically every known visual technique was used in presenting the material, which illustrated

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<sup>1/</sup> Has since retired to live in Ohio.

production methods and marketing and distribution processes involving agricultural products.

In addition to the two regularly scheduled programs outlined above, workshops for State staff members have been conducted on the Ohio State campus, and staff members of the University have participated in established programs on commercial stations. At the county level we have sponsored workshop sessions and given individual assistance to county agents and their staff members. County agents are participating in established programs on local stations, and many are conducting their own programs.

The problems we are encountering in reaching our audience through television are basically the same ones bothering most of you who have been faced with this responsibility. However, in common with other states, we have no problem that more money wouldn't solve. There is no way around it. Television programming costs are high. We have no adequate film library. There is little or no stock footage available. Many films are not cleared for use on television. Those that are cleared cannot be cut to use selected portions. At Ohio State we do have personnel and facilities available for obtaining motion picture photography, but these services still cost money, and there is never enough time for shooting and processing. They are also limited to exterior scenes.

The few film clips and scripts on hand are not adequately filed and catalogued. There is no adequate or satisfactory method of obtaining films or film clips and circulating them among the counties for their use. Then there's the problem of editing, particularly to meet local needs, without trained people and suitable equipment.

On top of all these problems is the matter of time...time to prepare the programs, to search for film material, to photograph new scenes, to edit the clips and write the narration. They tell me there are 24 hours in every day. I think that's one thing Ohio may have been short-changed on.

To make our TV effort more efficient and more effective, it is essential that we establish a good visual library for use by both state and county staff members. This library should contain adequately catalogued and filed film clips, packaged film features, appropriate charts, pictures, graphics, and models. We want to make full use of our workshop potential to train the county agents and their staffs. Visual-minded county agents, trained in efficient use of the media of mass communications, can bring about closer cooperation between county staffs and local television stations, and possibly get local stations to provide much needed assistance.



EXTENSION TELEVISION AT MICHIGAN STATE COLLEGE

by  
George H. Axinn  
Extension TV Editor  
Michigan State College

The real meaning of the word "chaos" was unknown on the Michigan State College campus until the main switch in the master control room of WKAR-TV was thrown on Friday, January 15. Then, it happened. If you've ever run after two rabbits at the same time, you know what it was like.

But out of it all, the beginnings of a tremendously potent educational tool are taking shape. That this new baby, whose loud wails, dirty diapers, and large doctor bills almost blind us now, might ever develop to its full potential seems impossible. However, it looks as though it could become the most efficient way of doing extension work; it could save us time, travel, and money; it might have lots of impact; it will reach new people, more people -- the right people.

And our staff is ready. They have already the basic abilities needed to do television. They must learn new techniques, but some are already finding it easy, fun, and a "natural" -- not at first, but soon.

The Cooperative Extension Service at Michigan State College is taking a two-way approach to television. The first is in training county workers, and helping them produce shows. The second is in programming on the college station, WKAR-TV.

There are 21 stations on the books now for Michigan. We have built Extension shows on four of them, and plan to work with stations and county people in developing more. Then our job will be to service them with ideas, training, visuals, and kinescope-recorded excerpts of our own shows.

We have three shows now on the college station. TODAY'S HOME, produced for Extension by Margaret McKeegan three afternoons each week, features Home Demonstration Specialists, Home Demonstration Agents, and homemakers, as well as our consumer education staff. On Tuesdays and Thursdays, each week, this half-hour show is devoted to regular leader training meetings, TV-style. For some of them, special viewer coffee groups have been organized.

Our nightly half-hour farm show is produced Monday through Friday. In addition to daily weather and market reports, this program features Extension specialists, followed by county agents with farmer guests and film made on the farm. For example, on a typical show, after the weather report, an Extension specialist might show a sow with a litter of pigs in a farrowing pen. He might make some



recommendations about the construction of the pen, and show them. Then, after our market report, the county agent and his farmer guest narrate the film farm visit. The farmer shows that he is following the recommended practices; points out that they work, they pay; and then "seconds the motion" of the specialist.

One of the special promotional things we're doing is raising a flock of broilers right on the show. They live in a brooder coop outside the studio, and are featured on the air several nights each week. Then, every other week, our poultry specialists check their progress and record it on a scoreboard.

In addition to daily market reports, which are very brief and visual, marketing specialists summarize conditions, trends, and outlook on Fridays. This is done with charts of week-by-week prices, with plexiglass overlays for marking changes and superimposing average seasonal price movements.

MENU BY SCIENCE, our Sunday show, is a commercial for agricultural research. Featuring the experiment station and its projects, the purpose of this show is to convince folks that farm research is a good investment for them, whoever they may be. We start at the station director's dinner table, and his guests relate their research to various food items being served.

As for our audience -- please don't ask, yet! We're convinced that it is more dependent on the kind of programs we offer than anything else. We don't think it's true that all you have to do is put your demonstration on television and you've accomplished your educational objective. TV must be designed for its audience, just as any other media must. We've taken out cue from the farm magazines, and are letting farm people show their own story!

Program planning is vital to the success of television. Our system involves, first, county Extension folks. They suggest topics on a week-by-week basis, 13 weeks in advance. Specialists handle these topics across department lines. Sometimes this involves a series of shows on one topic, often just one show. Then we go back to the agents to locate farmers to put the icing on our specialists' cake.

Every two weeks agents in our viewing area send a complete program list of Extension shows to farm families in their counties. We print these with a personally signed letter for each agent. They are mailed from county offices.

Right now, we're doing most of our filming within a 75-mile radius of East Lansing. That way we can get each job done in one morning. One cameraman and I do the job together. We work from a rough shot list, and ad lib around it. We keep a card list of shots as a basis for editing. Unless things get complicated, we try to shoot no more than 200 feet of film per farm, and then use from

four to five minutes of it on the air. Farmers and agents see the film once or twice in our studio before they narrate it, with our M.C., during the show.

We spend as little time as we can in preparation. Film is made for shows as long in advance as possible. Each afternoon we have a conference for the show one week away. Then, on the night of a show, our talent arrives in the studio at 5:30 p.m. The studio is already set up, they put their props in place, and are ready for a rehearsal by 5:45 p.m. We go on the air with BETTER FARMING at 6:30 p.m. A similar rehearsal pattern is followed on our other shows.

Today we're far from our goal for television. We don't have as large an audience as we some day will. Our programs are not as well done as they some day will be. And television, at Michigan State College, is not yet the most efficient tool for doing Extension work. But we're beginning to catch our rabbits, one at a time. We're convinced that our new baby is a member of the family...we must keep it.

The future of television as a major factor in the total program of the Cooperative Extension Service looks bright.

#### THE ONE-MAN EXTENSION FILM PRODUCTION UNIT

by

J. Aubrey Smith  
Visual Education Specialist  
University of Georgia

The Georgia Agricultural Extension Service has produced a variety of films for television and use in farm meetings. The subjects include news, safety shorts, and film clips. Most of the television film had been narrated by the MC while telecast.

All film material produced for television is based on the need it is to serve. A one or two-minute film on television may be used as an eye-catcher, carry a safety message, news event, and so forth. (Some 4-H news stories have been photographed, processed, edited and televised during the same day.)

Many films photographed for television are later made into films to be distributed by the film library for use in farm meetings. The one-man production unit must use the aid of all available personnel on the staff. Without such aid, many films would not be possible to produce.

The following steps are taken in producing a typical film for use primarily in the counties, and secondarily for television.

The specialist and county workers are consulted to determine what is needed.



Many films proposed by the Agricultural Extension Service are of interest to commercial organizations. These commercial organizations are contacted on the basis of supplying funds necessary to cover production cost. The specialist, being in a good position to know potential sponsors, often aids in obtaining sponsorship of the film.

After a sponsor has been located, the subject matter specialist lists all subject material that is desirable to be included in the film.

A treatment of the film is then made and discussed with various staff members. From this a scenario is written. A specialist can easily mark the dates and places this material can be obtained.

In the field, the one-man production unit acts as director and photographer. It is highly desirable in many instances to have the subject matter specialist in the field as technical adviser. Normally all contacts in a county are made through the local extension agent.

While the scenario is followed to a certain extent, often conditions in the field make it impossible and undesirable to follow. One of the greatest advantages of the one-man production unit is that decisions can be quickly made in the field, since the same person has the thinking in back of the film from the earliest conception to the final production. The one-man unit must think of editing problems while in the field and thus take steps to avoid difficulty.

Scenes found in the field are more authentic than those conceived at a desk. Using scenes as found in the field naturally saves production time and cost.

The use of close-ups concentrates attention upon the desired subject, increases the apparent quality of the small film, and eliminates the necessity of heavy lighting equipment.

The use of lightweight camera equipment that can be easily set up offers further advantages in that people in front of the camera will not become as nervous and upset as they would with heavy equipment. It is highly important that the actors in front of the camera, although not trained in acting, give a natural performance. The close-up cut-in shot helps to correct errors in acting.

After photography, the film is projected once and choice scenes selected. The cheaper films are edited directly from the original footage. A work print is made of the selected scenes from the more expensive films. The work print is edge-numbered to aid in final matching. The same person who does the original writing, directing and photography also does the editing of these films with the advice of the specialist involved. The scenes are arranged in sequence for picture-telling continuity. The narrative is then written and timed.



Sound recording varies with each type of film. Often television material is not recorded but is narrated as it goes out over the air. The low-budget film sound track is recorded on a standard tape recorder as used in radio work. Timing is accomplished by measuring the footage at which key words should synchronize. This is converted into seconds and the narrative timed during recording with the stop watch. The tape is sent to a commercial laboratory for rerecording to film. The original film is matched with the work print. The laboratory makes the final release prints.

Professional voices recorded at commercial studios are used on films with a better financial budget. Music and all laboratory work is done by the commercial laboratory.

[At this point Mr. Smith showed examples of three types of films made by a one-man production unit, and made the following comment on each:]

DAWN OF A NEW DAY (30 minutes, sound, color) follows a main character who becomes interested in pasture development. The film carries on through the various steps in growing better pastures and, through the use of tours, shows how different pastures are grown throughout different parts of the State. The film has a professional voice, music and other lab work done by a commercial laboratory. The planning, photography, editing, etc., was done by the "one-man" unit. The average cost of such a 30-minute film is approximately \$5,000.00. This cost includes a pro-rated salary of the one-man production unit, travel, raw stock, work print, music, lab charges, voice recording, and first print.

4-H PASTURES (9 minutes, sound, color) is designed to let outstanding 4-H boys in the State tell others how they developed pastures, and thereby encourage other 4-H members to improve their pastures. This film demonstrates a live technique whereby Extension personnel interviews 4-H Club members. An ordinary non-synchronous tape recorder was used for sound recording. The camera was driven by a synchronous motor and both were enclosed in a home-made blimp. The voice and picture will run in synchronization only about 15 seconds using this makeshift equipment. This is long enough, however, if thoughts are compressed into the fewest words. Sound recording continued with the camera dead. Field shots were then made to cover pictorially the subject discussed in the interview. A new camera angle was used to close the interview in lip sync. This film was photographed on commercial Kodachrome in about  $3\frac{1}{2}$  days with approximately one day's editing time and one day's matching time. The out-of-pocket cost of this film, including five color sound prints, was less than \$500.00.

BETTER COMMUNITIES (10 minutes, sound, black-and-white) is designed to inform both rural and city audiences how community development work is being carried on in Georgia. This film was photographed for television use but later made into a film for distribution

through the library. The film was photographed on black-and-white reversal film and edited with the original. Approximately four days were required for photographing this material, which included a considerable amount of travel. Editing time was about one day, recording approximately  $\frac{1}{2}$  day using staff personnel voice and tape recorder. Cost of this film approximately \$250.00.

### THE NEBRASKA APPROACH

by

Jack G. McBride

Director of Educational Television

University of Nebraska

Before getting into the specifics of the University of Nebraska approach to the problem of films for television, let me first mention the live agricultural television programs which University of Nebraska Television produces over commercial stations in the State. This list includes only our agricultural programs.

Backyard Farmer, KFOR-TV, Lincoln, Nebraska. Weekly half-hour program on which a horticulturalist, plant pathologist, entomologist, county agent, and an M.C. discuss the problems of gardening, house plants, etc.

House and Home, KOLN-TV, Lincoln. Weekly half-hour program dealing with the problems and pleasures of living in your house and home. Home economists and Extension agents treat various phases of home living.

Farm Question Box, WOW-TV, Omaha. Weekly insert to Farm Service Director Mal Hansen's TV Farm Reporter program. Extension specialists from the College of Agriculture present a different problem and its solution each week.

A new 15-minute rural program presented jointly by the Agricultural Colleges of South Dakota, Iowa State, and the University of Nebraska will begin March 1 on KVTN, Sioux City, Iowa. This thrice-weekly program will reach counties in all three States, with each University sending its county agents on a rotating basis.

TV Farm Short Course, WOW-TV, Omaha. January 25 through 29 saw the airing of the second annual short course series, 1-2 p.m. On these five days Extension specialists and professors from the Iowa State Agricultural College and the University of Nebraska College of Agriculture joined together to present programs dealing with problems the most common to the farmers of the Iowa-Nebraska area serviced by WOW-TV. Problems were



chosen in advance, and viewing groups set up with agents from each county involved. Discussion leaders were chosen and briefed in advance, so that after each day's live program session, the material was digested.

On all of these programs, existing film clips, USDA film packages, and special footage produced by University of Nebraska Television are used.

In respect to the films being produced by University of Nebraska Television expressly for television presentation, we have adopted a rather new method of production. The University is fortunate in having an All-University Television Committee to oversee and plan out the over-all educational television program. Since an educational channel for the University must be some time in the future, it was decided that the stress for the present be placed not only on presenting live programs over the existing commercial stations, but also on filming as many programs as possible. The University has a well-equipped photographic laboratory at which all filming is done. By putting many educational programs on film, the prints can be used not only by all the television stations in the area, but, by placing prints of each of the films in the University's Film Library, they can also be put to good use by vocational agriculture teachers, county agents, Extension specialists, and the people outstate who do not have television as yet and won't for some time to come. The University of Nebraska is a University for the entire State, and this method of filming the educational programs makes them available not only to those in the State who have access to television, but to the many in western and northwestern Nebraska who cannot receive the commercial channels. By putting our programs directly on film, rather than kinescoping them at a commercial station, our programs are sent out with much better quality. This is another important factor.

So we feel that this approach is the one best suited to Nebraska at present, and is one which is proving itself by the day.

We, like all of you, have our budget problems and must work within a specified figure. And because of this we have devised a method of production which is a little out of the ordinary. Motion picture costs are extremely high, even for a University-owned laboratory. Consequently we had to devise a method which would reduce the amount of time, and thus the money, needed for production.

Our answer is to borrow some production techniques from television and others from motion picture production; we are effecting a marriage in production between the two media. We have linked our two Auricon cameras together in a multi-cam set-up, devised a system of blipping between the two, and use a floor manager to cue the performer to the proper camera. We run the programs as television shows in that once they have begun, they are timed through to the proper length. One camera does our cover work, the other our medium



close-ups. After shooting the program, we then go back to shoot any extreme close-ups, animation, or special effects needed.

We try to air the prospective program which is to be filmed over one of the local commercial stations, using that performance as a final dress rehearsal to filming. Such telecasts are not slighted in the least; we always strive to give the commercial stations the best possible show. But since putting these programs on film does involve a fair bit of money and we want the best possible film, we try to get the performers under actual performance conditions beforehand. And, believe me, this method has proved itself.

I would like to show you now two 7-minute films we have made recently, using this technique of production. We have designed this particular series of agriculture shorts that they might be included within a 15-minute or half-hour live television program, or two of them might be placed back-to-back in a 15-minute program -- the same principle upon which the USDA is operating with its TV packages. Each program in this series takes a problem, and in simple and basic terms attempts to provide the best answer.

[Mr. McBride then screened the following films:]

Chimneys, Fires, and You. Seven-minute film pointing out the dangers of chimney fires to rural homes, and showing how to check the chimney and flue to insure its proper functioning.

Buying Apples? Seven-minute film pointing out to the consumer types of apples, quality, usability, and storage.

U x TV = 1000 U

by

Joe Tonkin

Federal Extension Service, USDA

Yes, you times television equals one thousand of you. Television multiplies your effectiveness as an Extension worker. Keep the following points in mind when the opportunity to use television comes your way.

### Impact

The impact of television affects us whether we use it or not. Television's straight-to-the-point, lay-it-on-the-line style leads our people to expect the same concise information from us. It calls on us for better meetings, talks that give information in one-two-three fashion, short publications, uncluttered demonstrations, and more effective visual aids.

### Why Use It?

Television is more efficient. It reaches more people with a single effort on your part; and at the same time, with no more effort, it reaches people you have never reached before.

### Can I Do It?

Sure! Television uses the same abilities that qualified you for your Extension job in the first place. That is your ability to talk, to show, to explain, and to plan.

### What Can I Do With It?

You can do method demonstrations, which are made to order for the television close-up. Keep these demonstrations simple. Don't try to cover too much. You can do illustrated reporting, which is a television adaptation of the result demonstration where you use field specimens and visual aids to show the value of a practice. You can carry on an interview with a guest, provided you have a field specimen, pictures, or other visual aids to form a focal point for your discussion. Finally, you can use these types of presentation individually or in combination to make up the content of your program.

### How Can I Do TV?

Your starting point is PREPARATION. Preparation in television involves careful and definite planning for the audience you reach plus extreme attention to detail. It is in this care and detail that we invest most of our television time. Next, we are concerned with the ORGANIZATION of these details. To do this we make out a RUNDOWN SHEET. This is not a script to be read, but a plan to be followed. Give it in advance to the director of your program at the station. Go over it with him. Work closely with him.

After preparation and organization, your big job is how to show your material on camera. To do this, regard the camera as a person. Show things to it as a good clerk shows you something across the counter in a department store. Hold it on target long enough for the camera to see it. Move deliberately. Don't jerk. And by all means, avoid clutter or anything that will divert the viewer's attention from where you want it to be.

### What About Visual Aids?

The best visual in television is the REAL thing. Of course, it is not always possible to have the real thing -- a trench silo for example -- in the studio. That is when visual aids literally come to our aid. We use a picture, a film, a drawing, or a model to show our audience how such a silo is constructed and how it is used. Drop cards and words on a flannelgraph serve to give visual emphasis to our recommendations. Use plain bar charts sparingly. Keep in mind

that the message area of a television receiver screen demands that the subject of interest in a picture, slide, or drawing or the words on a card be well in the center with wide margins on all sides.

As for color, at this time we are dealing in values of gray. There is no absolute black or absolute white on television. Avoid white and very dark clothes. Use light blues, grays, and (for the ladies) pastel shades.

For contrast in cards use flat black letters on gray. Letter size should be large to the extent that about 30 characters would be the limit to the card or slide. Finally, do not forget that all television is transmitted in an aspect ratio of three units high to four units wide. For this reason you can't use slides that require vertical projection.

### Balance Your Methods

Remember that television is the best substitute for a personal contact. But it is still a substitute. Face-to-face teaching and real-life demonstrations are the most effective approaches to the learning process.

Balance your educational work by using all available personal, group, and mass methods. But don't neglect television, because the interested viewing audience is large and constantly growing larger.

Be sold on your subject. Be yourself. Television is a natural for Extension people.

T - E - L - E - V - I - S - I - O - N

by

Bill Bergoffen  
Division of Information and Education  
Forest Service, USDA

This is in the nature of a mid-way summary. With research and script preparation coming up, as well as the work of the motion picture director and a bit about the tools the cameraman uses, let's get down to fundamentals.

Here, then, utilizing 11" x 14" cards (attractively lettered and appropriately decorated) as our visual aid, is a "gimmick" that sums up the various elements that go into the making of a good television show, film or otherwise. Each card bears one letter of the word TELEVISION. Let's break it down, letter by letter, each letter signifying an important element in good programming:



- T - Theme or subject. Ought to be good, ought to be timely; get off to a good start.
- E - Entertaining. No. 1 in getting attention and providing easy listening; we always learn more when we enjoy the learning.
- L - Lucid, clear and understandable; not a rambling dissertation.
- E - Enlightening, so listener or viewer will feel that his time has been well spent and that he has learned something worth while.
- V - Visual aids. Rarely a TV show without them.
- I - Interesting. Better the real thing than a substitute; action device much better than a static one; models have their place, as well as drawings, film and photos.
- S - Simple. Avoid tricky gadgets. Also means Standard--use visual aids that conform with the quality, size of materials used by the TV stations themselves. This goes as well for standard lengths of shows preferred by the stations.
- I - Identifiable, interpretative. The viewer should know what he's looking at without need for elaborate explanation.
- O - Order, in the sense of continuity. As important to line up illustrative materials (visual aids) as working out continuity of subject matter; audio and video go together here.
- N - Natural. Be yourself. When a person knows his stuff, as most agricultural workers do, they're way ahead of the game. TV should hold no fear for us.

#### PREPARING SHOT LIST AND TIMING NARRATION

by

Sid Schwartz

Motion Picture Service

Office of Information, USDA

The shooting script is a blueprint for a motion picture. Length and detail of a motion picture script relates to the size of the proposed picture, its budget, length, informational needs and subject matter. Likewise a television short requires at least a minimum script which we call a "Shot List."

The Shot List is either a list of scenes or a list of sequences and is the simplest form for motion picture script. A Shot List is valuable because it organizes research and outlines subject matter; makes planning possible for locations, actors, props, shooting dates; saves time -- makes a shooting breakdown possible; simplifies direction; conserves shooting; and simplifies editing.

What does the Shot List -- or list of scenes -- add up to? It outlines the story you have to tell; it establishes beginning, middle and end of the proposed motion picture; it sets the scope -- by building a fence around the subject matter, you are prevented from building a house larger than the fence. The Shot List is a buying list -- not a shopping list (no excuse for shooting off the cuff unless it is an unplanned news event). The Shot List telescopes time and action. It raises the curtain on opportunities for showmanship. Especially in regard to TV presentation, film faces tough competition. With showmanship you will hold your audience. Showmanship starts with the script, ends with the first showing.

How long should the Shot List be? This question was answered in 1656 -- almost 300 years before the era of TV. Blaise Pascal answered the question when he put the following postscript on a letter: "I have made this letter rather long only because I have not had time to make it shorter."

As for film narration -- it constitutes the words that complement the picture. The narration must do the following: it has to set the stage by introducing the problem or main subject; it must cover the Who, What, Why, Where, When, How -- only in instances where the picture doesn't; it directs attention by assisting the audience (the eventual and ultimate customer) and interprets the flow of action and pictures; it smooths transitions -- bridges and sequences -- and establishes changes in time and place; and finally the narration concludes the presentation -- ties up the package.

Here are some narration writing recommendations:

1. Let the picture tell the story. Don't produce an illustrated lecture.
2. Write TO the picture. Don't confuse -- with narration talking about one thing and the picture showing something else.
3. Don't overwrite. Don't repeat. Point up, supplement, complement. Don't lecture, don't bore.
4. Avoid complicated sentences, figures, statistics, difficult or unfamiliar words.
5. Don't hide identifications of prominent subject matter. If something or someone needs

identification -- do it early in sentence or paragraph.

6. Remember, your narration will not be the last word on the subject. Make your point -- then shut up!

And here are some recommendations on timing narration:

1. Leave time to establish a change of sequence or scene.
2. Let action play out to music, sound effects -- not words.
3. Fit ideas as expressed by living words to scene. I quote tabloid editor Emile Gauvreau: "I want the headline to jump off the page." A solid narration should have few words, but they should be lively -- should deserve to be said.
4. Don't smother your picture with words. Rather make the combination of pictures and narration a living experience. Meld the words and scenes, harmonize them into a single entity.
5. A narration writer must employ the magic of a good reporter, a good teacher, and a good showman.

### THE MOTION PICTURE DIRECTOR

by

Martin Lobdell

Motion Picture Service

Office of Information, USDA

The role of the motion picture director is extremely varied. Many factors affect this role: The type of picture, the nature of the director as an individual, the company or organization producing the film, the sponsor, the cost of the production and time involved, to mention a few. The motion picture industry has produced many outstanding directors. But for every one whose name has been a household word, there have been hundreds of others, both good and bad, who have assumed this responsibility for one or more motion pictures.

In an organization like the Motion Picture Service, the director is both a story teller and an educator. He is a planner and an organizer. He must understand all phases of production and must assume responsibility for the production of the film.

In starting a new picture, the director has an important sequence of tasks to perform. I have divided them into four stages:



the thinking stage, the writing stage, the talking stage, and the doing stage.

The first, or thinking stage, is self-orientation. What is the purpose of the picture? What are the essential ideas or facts it is intended to convey? What kind of audience will see the picture? Under what conditions will the picture be shown? Do I, as the director, understand the script from the writer's viewpoint? What are the limitations? How long will the picture be? How much money is available to make it? How much shooting time is allowed? How much help will be available? Are there any unusual conditions or requirements?

I must read and re-read the script or scenario to acquire an over-all perspective and to understand fully the subject matter from the writer's point of view. I must visualize the script... convert scene descriptions into mental images of characters, situations, and settings involved...juggle these images until I am satisfied that they demonstrate with the utmost clarity the facts and the relationship of facts to be presented...envision the mood, color, tempo, and rhythm of these images in terms of the picture's dramatic structure.

While I am formulating these ideas of what the picture should be, I must keep other objectives in mind. The picture should be convincing. Any motion picture is an illusion, but to achieve rapport with the audience, it is important that the illusion be convincing and believable, that people and things and the backgrounds against which they move contribute to the sense of reality.

The picture should be meaningful. I must strive for clarity in picturing an unfolding plot, a technique, or a process. Give the audience a front row seat, and make certain that no vital details are obscured from their view. It is especially important to demonstrate intangibles, abstract ideas, as graphically as possible. I must rely primarily on pictures to tell the story, and use words, sounds, and music to supplement and strengthen the pictures. I must visualize a motion picture, not an illustrated lecture.

A motion picture should be dynamic. A painting or a still photograph freezes action because it captures the present. Imagination can impart movement to it by supplying a fictitious past and future. The unique quality of the motion picture is its capacity to penetrate and traverse the dimension of time. Motion is a function of time, and life is movement. It is of fundamental importance to observe the dynamic element in every situation, and make it the mainspring of your story. By this I do not mean the superficial movements of random behavior, but the organized movements which make any process -- the solution of complex human problems or the growth of a humble bean sprout -- meaningful and exciting.

The writing stage consists of breaking the script down into its various parts. I must first consider sequences. A film sequence is comprised of a group of individual scenes which are ordinarily related in space and time as well as in concept. This paragraph equivalent may be clearly indicated in a well-written script; but it often happens that the director must expand a single script scene into a sequence of scenes to make the action which it entails more revealing or more interesting. These sequences should have been visualized as separate units in the thinking stage; but it aids detailed planning if they are organized on paper.

Once this organization is accomplished, there arises the problem of locations. How many? Where are they? I must group them according to proximity and by seasonal and weather requirements. I must list interiors and exteriors, and indicate whether photography will be made on stage or on location, with or without sound. The cast can be a headache, too. How many people? How long will each person be needed? Where will each person be needed? What qualifications are necessary: general characteristics, appearance, voice, degree of talent needed, special talents required? What about props and costumes, narrators, sound effects, music, art and animation, and special effects? I, as the director, must know the answers.

The talking stage is not just a lot of gab. It's real work. It means production planning with the sponsor, the producer, the production manager, the writer, the cameraman, the sound man, the animator, the designers, stage hands, and musician. It means casting. By this time the director should have a clear picture of the cast. Here the dream becomes reality. They must be selected -- but first they must be found. Sources include professional guilds and actors' agencies, little theatre groups, radio and TV stations, people accustomed to public speaking, inexperienced people. Always audition. Don't make commitments until convinced. Final selection is made on the bases of fitness for part, availability and contract agreement.

The talking stage also means selecting locations. This may mean a trip or two but it pays in the long run. The director should actually see his locations and check on suitability, accessibility, proximity, availability, access to light, and freedom from noise and interference. He should confer with the property department and reach a very detailed agreement on the purchase, rental or loan of necessary props and costumes. It is important that he supervise the construction and decoration of sets.

More important, however, is the preparation of the shooting schedule. This bit of work is more writing than talking, but it can't be done until all the talking has been completed. The shooting schedule is a detailed plan of action, including a daily work outline. Such a schedule will save time, money and energy. Every job to be done should be listed and in the order in which it is to be done. The schedule should be realistic and the director should follow it religiously.



The fourth and last stage is the doing stage. Here success depends on wholehearted cooperation from and with the production crew. An efficient daily shooting pattern is a must. I have found that the best schedule calls for smooth, steady work. Don't rush if it can possibly be avoided. No truer words were ever spoken than "haste makes waste." A good director will seek suggestions from his crew and heed them if they are good. He will always rehearse his crew. Adequate rehearsals mean good performance. Good direction of the production unit is as important as good direction of the cast. A good casting job will simplify the job of directing. No special technique is universally successful. A convincing performance on the part of the cast is the criterion. Actors should identify themselves with the characters played. Seek balanced performances. Use what the industry calls appropriate "business" -- bits of action that create interest. Don't skimp on rehearsals, but good shooting time should not be consumed with learning lines. Use evenings and bad weather for initial rehearsals with cast alone.

Adopt standard procedures for scene identification. Photograph a slate at the beginning of each take. This slate should show the production number, the roll number, the scene number, and the take number. These numbers should be given verbally also for sound takes. Slates should also show the names of the director and cameraman, the number of the camera, the location, and the date. A camera report must be prepared for each roll of film exposed. This report contains the information appearing on the slate for each take, as well as the cumulative footage for each take and instructions to print, hold, or mark NG (no good). Spoken cues are used on sound takes -- "camera," "action," "cut," "print," "hold," "NG," etc. These cues or instructions avoid confusion and identify film wasted by false starts, as well as provide start and end cues on the sound track.

Since the sequence is the principal building unit in film construction, it is important that the director plan in terms of related scenes and shoot each individual scene with the entire sequence in mind. The continuity of action within a sequence should flow so smoothly that the audience is not aware of the shifting viewpoint afforded by each scene within the sequence. Each scene is a composite of two variables -- the field of view and the angle of view -- which provide the possibility for infinite variation of framing. Field of view is determined by the distance of the camera from the subject. It is usually designated as an LS (long shot), MS (medium shot), or CU (close-up). These terms are, of course, relative to the size of the subject. Angle of view is designated by the common terms front, side, low, high, reverse, etc. Composition is determined in part by these variables, and in part by the organization of objects within the chosen frame area.

The first scene of a sequence is typically a long establishing shot photographed from an angle chosen to show the entire field



of action to best advantage. It may be desirable to make a master scene by photographing the entire action from this viewpoint. Remember, however, that long shots generally do not reproduce well on television. Establishing scenes should be selected with care. Closer shots of details may be secured by repeating parts of the total action. When cut into the master scene, the result is a sequence. If the sequence is shot piecemeal, it is often desirable to make the last scene a reestablishing shot similar to the original. Such a shot serves to reorient the audience, and makes a transition to new material less confusing. It is important that both field and angle of view be changed each time a new scene is started. In short, if the camera is stopped, pick it up and move it before pushing the button again. If this is not done, a jump cut is the inevitable and unhappy result.

To enhance the illusion of continuity of action within a sequence, remember that a good director will overlap action from one scene to another. In repeating parts of a total action so that a variety of shots may be secured to round out a sequence, each successive bit of action should begin at a point which was included in the previous scene. This will provide the cutter with several possibilities for joining the two scenes together effectively. Remember, too, that the direction and the tempo of action must be consistent in two scenes which are to be linked in sequence. It is equally important that all other aspects of adjoining scenes are matched -- positions of people or objects, their relation to the background, expressions and gestures, lighting and general atmosphere. Failure to observe these basic rules results in a disjointed and confusing presentation. It should be emphasized that these rules apply to sequence shooting only. Inserts or cutaways are devices commonly used to reduce the film time of an action, or to fill gaps between scenes where action is poorly matched.

Scenes within a sequence are ordinarily joined by a direct cut, because there is no apparent change in time or place between each scene and its successor. More elaborate transitions are usually required to link sequences together. The fade and the dissolve are used most often because they are an accepted filmic punctuation meaning elsewhere, in the meantime, or later on. The fade marks a total break between sequences and commonly denotes the passage of considerable time, whereas the dissolve blends two images together in a fashion that implies change of condition, time or place in respect to a subject or situation which appears in both of the sequences to be joined. Natural transitions can be effective, but are sometimes so tricky and clever that they contribute to confusion rather than clarity.

It is obvious that changes of angle and field of view may be achieved by moving a camera which is in continuous operation. This device gains perfect continuity, but becomes monotonous when overdone, because tempo and rhythm are limited to the action itself. Another handicap is the impossibility of telescoping time. Static

objects can be given dynamic quality in sequences without matched action. In the same manner, shots related only by nature of concept or subject can be cut together without any continuous flow of action.

In summary, successful direction depends on adequate planning. Never shoot without a script or planned outline. Tell your story in pictures first, and let the sound track supplement the picture story. Make your story convincing, meaningful, dynamic. Plan in terms of sequences. Good organization of the production crew and full cooperation from all concerned will pay off. Don't rehearse on film; it's expensive. Above all, maintain your enthusiasm and that of the crew.

SUMMARY OF DISCUSSION  
ON FILMS AND EQUIPMENT OF USDA WORKSHOP

by  
Harold E. Wingo  
Motion Picture Service  
Office of Information, USDA

Did you know? -- that in 1824 the principle of persistence of vision was first brought to scientific attention by Peter Mark Roget and illustrated by twirling a card with the picture of a bird on one side and a cage on the other.

Did you know? -- that in 1872 Senator Leland Stanford of California, investigating the gait of a race horse, had a succession of photographs made recording the position of the animal, and that this led to extensive experiments at Columbia University.

Did you know? -- that in that same year Thomas Edison invented his Kinetoscope...that in 1889 a photographic film developed by the Eastman Kodak Company was used by Edison and demonstrated by him in his laboratory and that motion pictures were presented commercially in New York for the first time in 1894.

Edison's tarpaper studio at West Orange, called the Black Maria, revolved to keep the stage in sunlight. The Kinetograph (or camera) weighed almost a ton -- events had to be brought to it.

It's a far cry from this to present-day films and cameras.

Shall we use negative or reversal film -- regular Kodachrome or commercial Kodachrome? That depends on the use to be made of our film and the laboratory facilities available to us.

It is important that edge-numbered film be used to facilitate matching original color film or negative to work print.

In most agricultural jobs portability of camera is important. You can't shoot all your scenes from the highway. A direct finder



(through shooting lens), either reflex or by means of a rack-over arrangement, is very desirable, especially for close-ups where correction for parallax is essential -- and close-ups are a must in motion pictures.

The very bare necessities for shooting motion pictures are (1) camera, (2) tripod, and (3) exposure meter. The tripod should be steady and should pan easily (but pan only when you have a reason). The desirability of using the same combination of camera and meter should be kept in mind.

Lights are a big factor in making quality movies. It is often more desirable to pick a location because of available power supply than to sacrifice quality or to melt somebody's lighting system or burn down a house. Building a small set near source of power is often an economy in the long run because of time saved in moving around.

[The majority of Mr. Wingo's time was spent in showing and discussing equipment. In addition to the cameraman's basic equipment, the following were also discussed: (1) Gray card for reading light intensity on white subjects or small objects such as insects; (2) Reflectors; (3) Hi-hat -- a means of mounting a tripod head on a board for a low shot or to be clamped on a stepladder or roof; (4) Blimp to muffle camera noise while recording sound; (5) Cable or fused switch-box with clamps to tie on to power source; and (6) Clamp-on holders with barn doors to hold R-2 photoflood lamps.]

### THE CRYSTAL BALL

by

Elmer S. Phillips  
Head, Visual Aids Service  
Cornell University

I feel no need to extol the virtues of the State, the University, or even the high-quality New York apples. For the sake of maintaining the schedule as outlined, I would rather look in the crystal ball and outline briefly the future of both visual and television obligations of our respective institutions.

I feel that each State has built a balanced information service consistent with state policy, its people, their temperaments, their work, and the budget available. But now such services are at a crossroad. The new medium of television to some promises untold glories of the future, but to others there is merely the grudging admission that it's probably here to stay. Somewhere between these two extremes will be found the proper approach for communications personnel. We have gone through this same readjustment with the advent of each new means of communication. Some promises of the enthusiastic have been fulfilled, other forecasts



have drifted into oblivion. Radio, for instance, according to some would eliminate the need for newspapers and magazines. Yet today these same newspapers and magazines enjoy a wider circulation than ever before.

The point made clear by television, however, is that the old concept of using words alone to create mental images for the reader must be excluded. Our new editorial concept must produce a harmonious wedding of words and action to accentuate and exhilarate the free flow of information. Words alone have proved all too often to be inadequate. But words and pictures produce faster learning more easily.

Today's communications people are also confronted with various wide-field screens, three-dimensional pictures, and similar technical improvements. Each poses its technical problems and clouds the future.

Each of these media, including television, will ultimately find its proper level in our scheme of life. The effects of these changes will last forever. Therefore, those of us in communications fields must learn new concepts and new methods to blend words, thoughts, and actions for a telling impression on our constituents. The only safe forecast I can make is that he who will not learn these concepts is lost.

#### THE MOTION PICTURE CAMERAMAN--EXTERIOR PHOTOGRAPHY

by

Dick Mosher

Forest Service, USDA

Exterior photography, particularly as done by the Forest Service, can be divided into two categories: (1) Opportunity or newsreel-type shooting, where the cameraman has no control over conditions or action to be photographed (under this category are such things as forest fires, wildlife, floods, and general news subjects--such activities cannot be "staged" and it is usually impossible to take repeat shots); and (2) "staged" scenes, where the action can be directed and controlled.

Not much need to comment on category (1) -- every photographer should be on the alert for opportunity shots, for in many cases they cannot be duplicated.

Under category (2), here are some basic rules that apply to all exterior photography. Have the main subject to be photographed in the light -- too often the center of interest or principal action is in the shadow. The rest of the scene or background isn't so important as far as lighting goes, but always have your main point of interest out in the light -- expose and focus on the center of interest. Reflectors are very useful. Cover a board with aluminum

foil -- and kick in reflected sunlight where needed. If a person is wearing a hat that shades his face, kick in some reflected light so you can see his face.

Another important thing to remember is that the camera sees with only one eye. Shut one eye when you view a set-up -- see it as the camera does. Along this same line, some type of line-up view finder is very useful. View the scene through the finder to see how it will look to the camera.

In exterior photography, particularly for TV, avoid long shots as much as possible. A close-up of one leaf of a tree will very often tell a better story than a full shot of an entire forest. Also, keep the framing in mind -- leave enough room around the subject so part of the main action won't be cut off when used for TV.

Good pictures can be made from either opportunity or staged photography. Many films combine both. The Forest Service picture THEN IT HAPPENED started with some spectacular forest fire footage obtained in Maine with newsreel-type shooting. The cameraman returned to Maine with a writer and director where a story was worked out; staged scenes were made to tie the forest fire footage together; and the result was an outstanding award-winning fire prevention film. Another picture -- RIVER RUN -- began with some outstanding opportunity footage made during a log drive on the Machias River in Maine. The following year the drive was photographed again, this time staging necessary close-ups and following one man through the drive. The combined footage when edited resulted in the picture RIVER RUN. [RIVER RUN was then screened for the group.]

#### THE MOTION PICTURE CAMERAMAN--INTERIOR PHOTOGRAPHY

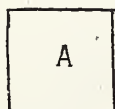
by

Homer Boor

Motion Picture Service

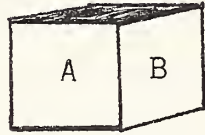
Office of Information, USDA

Motion picture photography, in the simplest terms, is the putting on film of an image meeting the aesthetic requirements of the arts, and maintaining story-telling qualities. The cameraman must have at hand the necessary tools and acumen to provide maximum information with each scene, and to create the illusion of depth and beauty. The selection of angles is the key to interesting photography and proper story-telling. Using a cube as an illustration:



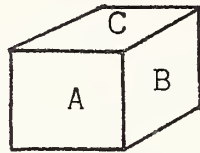
ANGLE "A"

When photographing Angle "A", a minimum of information is provided. There is no dimensional effect, and the angle lacks interest.



ANGLE "AB"

Angle "AB" provides more information, and has added dimensional effect.



ANGLE "ABC"

Here is the maximum information and dimensional effect.

The cameraman must keep in mind the importance of tonal qualities when dressing the set. Both in color and black-and-white photography, neutral shades are a must in selecting props, furniture, and clothing. As an example, the use of gold picture frames is much preferable to black. Drapes, upholstery, and rug patterns should be small or plain.

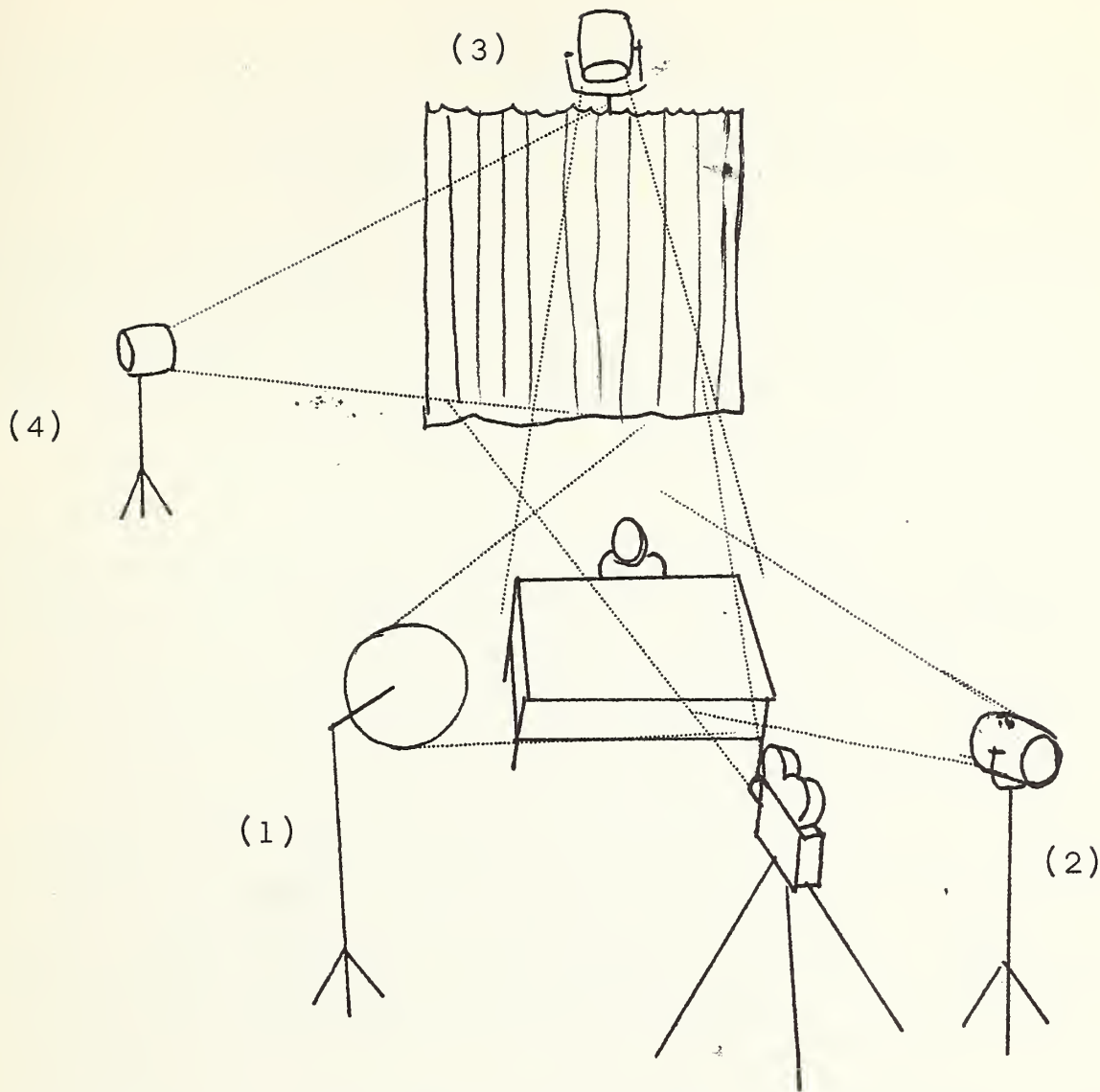
The principal character, whether animate or inanimate, must be supplemented by everything in the scene. Props, drapes, etc., must not, due to color or pattern, attract attention otherwise intended for the subject.

Simplicity should be common in motion picture photography. When sets are overdressed, when too many props clutter the scene, or more lights are used than necessary, the production will function inefficiently.

Picturewise, the scenes become heavy, and the lighting suffers in quality. Efficiency, time-saving, and quality are by-products of simplicity.

Simplicity in lighting is a must for small production units. There follows a sketch of the basic lighting set-up using four lights:





For example, with subject at desk level and cameraman at eye level, Key Light No. 1 is placed 3/4 front, either left or right side of camera, and should be approximately 7 to 8 feet off floor and tilted down to approximately a 45-degree angle.

Fill Light No. 2 should be near camera on the opposite side of Key Light at camera level. This light is used to balance the Key Light at a ratio of 4 to 1 for black-and-white, and 2 to 1 for color.

Light No. 3 is a back light which separates subject from background, creating the illusion of depth.

Light No. 4 is a cross light on the background only, producing shadows to give added feeling of dimension.

Quite often the light source is inadequate to register proper exposure. When adding more lights to build proper exposure, place new lights at the existing positions of the basic set-up. To add lights willy-nilly without regard to position destroys the over-all pictorial quality the cameraman is striving for.

MAGNETIC SOUND ON FILM

by

Michael R. Lynch

Assistant Specialist in Visual Instruction  
Pennsylvania State University

In our Agricultural Extension Visual Aids program at Pennsylvania State University, we have found a most versatile and useful tool in the magnetic recording projector. We started working with and using magnetic film and the magnetic recording projector when it first appeared on the market about two years ago. To date we have made twenty-five 400-foot reels of magnetic sound films (about 10,000 feet) on the magnetic projector.

Our program works something like this: We shoot all our films on single-perforation stock, either black-and-white or color, with the majority made on color film. Shooting is done at 24 frames per second with a Cine-Special camera. After the film is received from the processor, we very carefully edit the original. In editing we find that well-planned shooting and painstaking camera operation enable us to use approximately 95 percent of all the film we shoot. After the film has been assembled and the footage of each scene recorded as a guide for preparing narration, it is sent away for magnetic striping. When the magnetic-striped film is returned, it is placed on the magnetic projector and a narration is made as the film is projected. If changes are necessary in narration, the film can be run through the projector again, and the sound track changed to suit the producer. This magnetic-striped original is then used to make optical sound duplicates which are distributed from our Extension Visual Aids Library for use by our county agents, home economists, and specialists. Specialists also use the magnetic films by taking out magnetic recording projectors from our office to meetings.

We have found that the magnetic recording projector does record usable sound, and for our purpose we have been very well pleased with the resulting optical prints made from magnetic-striped film. We feel this is an extremely practical way for a State Extension Service to produce sound motion pictures. [Film shown.]

THE MOTION PICTURE EDITOR--EQUIPMENT AND TECHNIQUES

by

Larry Moore

Motion Picture Service  
Office of Information, USDA

Well, that demonstration of Mr. Lynch's is going to be very hard to follow, especially as it seems to contradict much of what I will have to say. Let's review it a bit and see why it is good, but why you may not fare so well if you follow the same procedure.

First, the subject matter is a natural -- a barbecue picnic. This is the answer to a director's dream. Here we have action and color, and also a story that can be really told with pictures. The action is self-explanatory. Mr. Lynch and his group have done a wonderful job. If I have made it sound as if they couldn't help doing a great job because of the type of film it is, it was not my intention. We all have seen very drab uninteresting films on this same general subject. It was Mr. Lynch's excellent photography, intelligent use of camera angles, narration, and music that resulted in this fine job. The point, however, is this: it is seldom that we get this type of story to portray.

I'm not going to teach you how to become film editors in one easy lesson. Not only would that be impossible -- it would be presumptuous on my part. Those of you who actually edit films have probably been doing so effectively for quite a while, and I believe the rest of you would be more interested in a general editorial procedure. I'll show you the equipment used here and explain its effectiveness. Then I'll briefly run through the steps necessary in the cutting of a picture. Again briefly we'll talk about editing and mention a few things that might prove useful.

A well-equipped cutting room consists of a cutting bench, a synchronizer, a moviola, film bins, a splicer, and, of course, clips, grease pencils, and a pair of scissors. A film viewer and a sound reader are a must if it is impossible to have a moviola. Most of you are acquainted with this equipment, and its usage will be readily understood as we proceed. For the present I will confine myself to a few remarks concerning the table, moviola, synchronizer, and rewinds.

I have seen a few small dark cutting rooms with plain benches, equipped with rewinds. These invariably resulted in sloppy work by a harrassed and worried editor. It is essential that the room be light and airy and that the table be equipped like this one with trays or racks to hold the film, and that a square piece of frosted glass (about one square foot) be set in between the rewinds. The expenditure of extra money for the "differential" type of rewinds that allows you to work concurrently with both 16mm and 35mm will be speedily repaid if you have occasion to do much work with 16mm picture and 35mm track.

I have been told that it is not necessary to have a moviola, that viewers and sound readers will be sufficient -- this is not so. It is very difficult to correctly "time" a film on a viewer, and the matching of action on cuts is usually sloppy and often ignored. As the work is not only done better, but much faster, on a moviola, the moviola will pay for itself in time.

This is the editing procedure we follow. It is one that is generally followed in most commercial studios.



Run rushes and select material to be used. This is usually done as soon as the film returns from the laboratory, and, when possible, the camera crew, director, lab man, and editor view it together. In the case of 16mm Kodachrome, the original is run and only selected takes are printed. When you have live sound, the track and picture are synchronized as the film is assembled. This is done by matching the frame of picture where the clap sticks come together, with the sound recorded on the track by the clap sticks. After synchronization, the scenes are assembled on reels and "coded," that is, starting from the clap sticks, corresponding numbers are placed on each foot of picture and track. In this way the scene will always remain synchronized when you watch the code numbers.

We then make a "long cut" of the film. Usually our pictures have off-screen narration and little, if any, "live" sound, so the picture is assembled in proper continuity but is left a little long. After consultation with the writer, any necessary revisions are made and narration recorded.

The "final cut" is made, at which time we tighten the film to the required length, order opticals, and lay in the narration and music and sound effects tracks. The picture is then dubbed -- that is, the various tracks are blended together on one track. When all changes have been made, the optical effects (dissolves and fades) are ordered.

We are ready to match the work print to the negative or original print. The work print is run through a synchronizer and each scene matched frame for frame. This is accomplished by matching the edge numbers that appear on every foot of original film and are automatically printed on each dupe or print. This job appears to be simple, but handling and cutting of the original film requires extreme care. Unlike the work print, this material cannot be replaced. The "dubbed" track and the cut picture negative are then printed together and we have our finished film.

I have assembled a reel of film with which I hope to be able to show what we have been talking about. The first roll is the film just as it came from the laboratory (the film is run). Now this same roll has been assembled in continuity, in order that we may see the editorial possibilities. This is our long cut; action is matched but scenes have been left long (film is run). You will notice the continuity is quite different. We have opened on a longer shot, showing more of the field, and arranged the other scenes so as to take advantage of particular points to be emphasized in the narration. The constant changing of scene or perspective has been eliminated, and the action is easier to follow, but it is still too long and a little jerky. This last roll will show film in final cut ready for dissolves and music (film is run).

We will not have time to say much about effects and music. Let me just say that nothing should ever be done without a reason.

Don't feel you must have music and effects because it is usually done. Study your film, and add music and effects only when they will help you tell your story. In most expository films where it is necessary for the narrator to talk most of the time in order to explain the film, or to teach you how to do something, music and sound effects usually distract instead of help. There are exceptions, of course. If your film were to deal with the maintenance of a motor, the sound of that motor running would be an integral part of the story, since the way it sounded would indicate its condition, and what should be done. If, instead of teaching or explaining, you desire to create a mood, such as sorrow, anxiety, fear, or happiness, music will indeed play an important role if wisely chosen. For instance, a sequence showing the New Orleans Mardi Gras would certainly need music.

The examples are extreme, in order to emphasize the reason for their use, but the reason is always the same. The music or effect must help the picture or it should not be used. As a result, in many of our films we use no effects and only main title and end title music.

We have talked a good deal about editing equipment and the physical cutting of film. Now I'd like to talk briefly about editing and the editor.

First of all, most of us do two or three jobs. As they say in the military, "we wear many hats." Some of us photograph, direct, and edit our own films. To most of you editing is merely a detail to be taken care of in completing your job. This is unfortunate because editing is one of the most important and essential jobs in the making of a film. Careful direction and good photography -- even an interesting story -- can be rendered ineffective by bad editing.

When working as an editor, forget you were the director or cameraman -- just be the editor. Remember that the essence of editing is timing. Always keep your story moving; don't hold too long on that beautiful scene you almost broke your neck photographing. Don't use that scene that you spent a week arranging for if your story has been changed and the scene no longer helps your picture. Throw it out even though the sponsor and several local celebrities were in it, if it doesn't help tell the story.

Know your material thoroughly; read your script and find the purpose of the film. Why is it being made, and for whom? Who is the audience? When this is understood, your editing will be more effective.

Remember, as Mr. Schwartz told you, this is a motion picture. Don't merely use pictures as a crutch for your narration track. Make the pictures tell your story. Don't write narration first and then look for pictures to fit it. Jot down ideas, figure film



sequences to express those ideas, then write the necessary narration to supplement the picture.

We have at various times mentioned editing and cutting; although the terms are used interchangeably, they are quite different. Cutting is a mere physical procedure; editing requires imagination and creativeness.

The good editor has but one thing in mind -- the effective telling of a story. To accomplish this, the story must move ahead at all times; keep out extraneous matter that sends you off on a tangent; watch for the dead spots, but don't trim your scenes too short or they will lose their effect. Remember to use your effects (optical and sound) and music to complement your picture in the telling of your story. The good editor remembers that a motion picture should tell its story with pictures.

### SOUND RECORDING

by

Reuben Ford

Motion Picture Service

Office of Information, USDA

The first principle of good sound recording is to be aware of the fact that the final recording can be no better than the weakest link in the recording system employed. Regardless of the quality or cost of the equipment, if one part of that equipment is of inferior quality or in need of service, the eventual recording will suffer.

A good example of this, and perhaps the one thing that contributes most to poor quality of sound recording, is the microphone. The best recording equipment available, if used with an inferior microphone, will result in poor recording. A low impedance microphone is best as it reduces hum and interference due to length of cable used. A unidirectional microphone will help reduce noises in the location where the recording is made. This is particularly true in the case of eliminating camera noise in the recording by placing the camera on the dead side of a unidirectional microphone. When recording equipment is purchased, balance it according to the amount that can be spent so that each unit will give maximum performance.

In selecting a recorder, keep in mind the requirements expected of it. Some recorders, even though they have synchronous motors, unless they are sprocket-driven, cannot be relied on for perfect synchronism. If sound to be recorded is not of a lip sync nature, these recorders can give satisfactory results if the "takes" are kept short. For good results in recording music, the mechanical drive should be carefully considered to reduce flutter to a minimum.



Regarding amplifiers, it should be noted that normal amplifier noise is far below the recorded signal. In other words, the signal to noise ratio should be high enough to reduce background noise in recording. Here, too, it should be remembered to record at a high enough level so that tape and amplifier noise is negligible when the recording is played back. However, since recording at too high a level will result in distortion, it is desirable to be acquainted with the limitations for each specific recorder.

If recording on magnetic tape, proper erasure will assure better results. If no bulk eraser is available, several runnings through the recorder with the erase current on will assure a quiet track.

When single-system sound recording is used, it must be remembered that the film should be of a fast nature to assure proper photography. This in turn will make proper sound exposure more critical, as slight overexposure will result in fogging of the sound track area and blowing sound will result.

It should be remembered that all the care and excellence in the recording of sound for a motion picture will be to no avail unless the projection equipment on which the recorded message will be reproduced is in the best of condition and properly threaded. If film is threaded loosely over the sound drum or the drum itself is dragging, very poor sound reproduction will result.

Another important precaution is to make certain that the projector is running at proper sound speed. If the machine runs too slow, it will result in all bass reproduction. If it runs too fast, it will result in high-pitch reproduction and also an unpleasant feeling that the narrator is trying to hurry.

Make sure the projector is up to speed before turning on the sound and it will eliminate unpleasant, unsteady sounds of music that will carry over throughout the picture in the mind of the viewer.

While the foregoing is very brief (books could be written on each phase), the main thing to remember is that each phase must be carefully considered if the end result is to be fully intelligible and pleasing.

### TV FILM CLIP LIBRARY

The Motion Picture Service of the U. S. Department of Agriculture announces a stock scene library service to land-grant colleges and other organizations and individuals interested in using agricultural motion picture footage in the production of films and television programs. Lists of stock scenes available will be published as material is added to the library.

It is suggested that these lists be kept in a ready reference file. The scenes are grouped under the title of the USDA subject for which they were photographed. Further cataloging or cross-indexing will be at the discretion of the user.

Scenes should be ordered from the Motion Picture Service by the scene numbers and descriptions, and in the length indicated. Double-perforated film stock will be furnished by the Motion Picture Service unless otherwise specified. A check or money order made out to the Treasurer of the United States must accompany each order. Formal purchase orders will be accepted from Federal and State Government agencies.

The following price schedule will be in effect until further notice. These prices are based on costs of printing, processing, packaging, and mailing:

16mm black-and-white prints .....	\$0.10 per ft.
16mm black-and-white duplicating negative .....	0.25 per ft.
16mm color prints (made from original) .....	0.25 per ft.

MINIMUM ORDER ..... \$5.00

### PARTICIPANTS

Those attending other than Department personnel were:

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